

2331/112

May 27, 2003

U.S. Application No. 09,821,850



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TECH CENTER 1600/2900

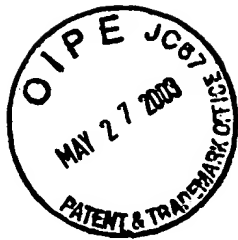
Substitute Formal Drawings

for

U.S. Application No. 09/821,850

**"Systems and Methods for Characterizing a Biological Condition or
Agent Using Selected Gene Expression Profiles"**

Bevilacqua et al.



#09592601

6692916

1/49

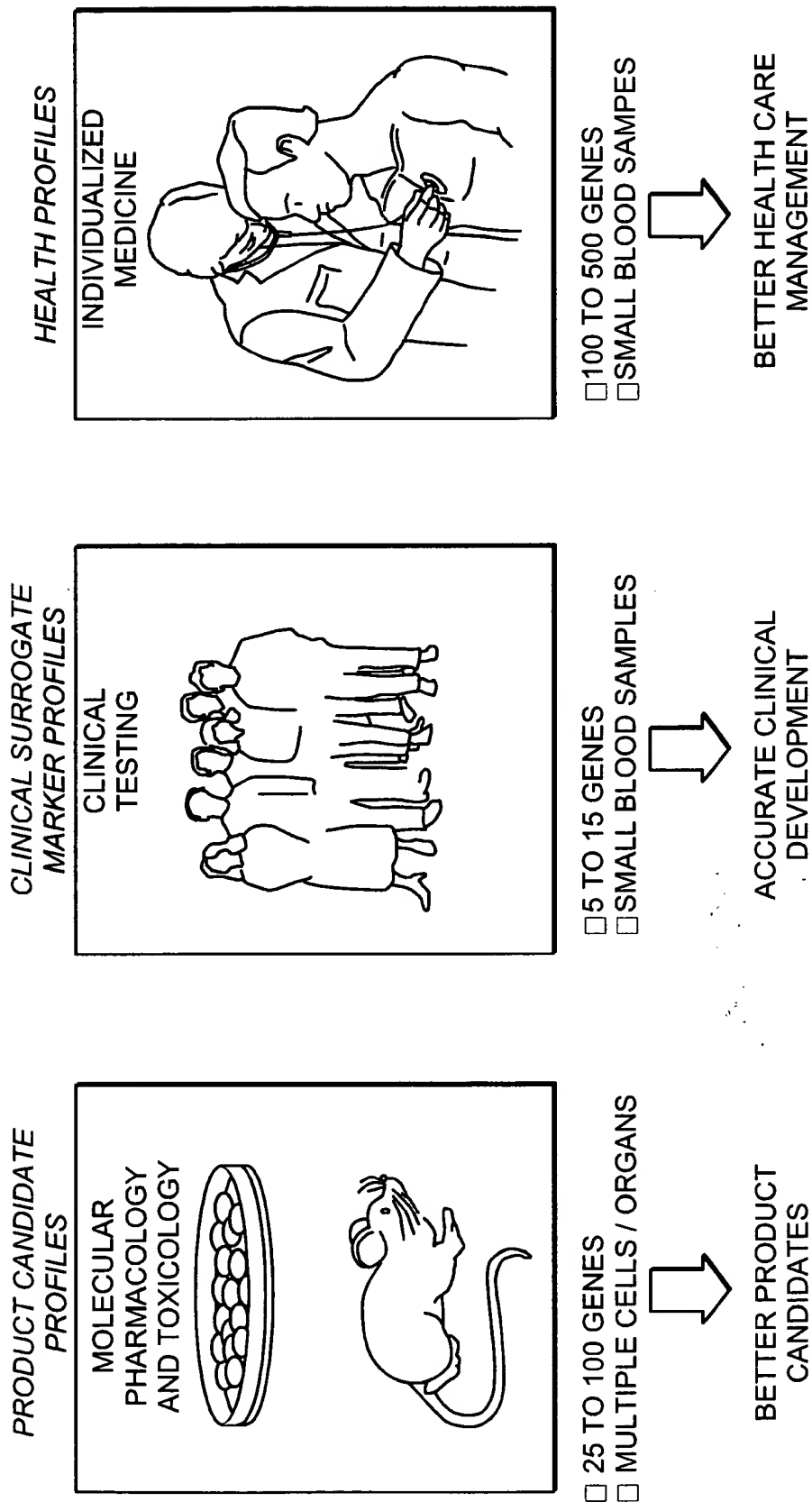
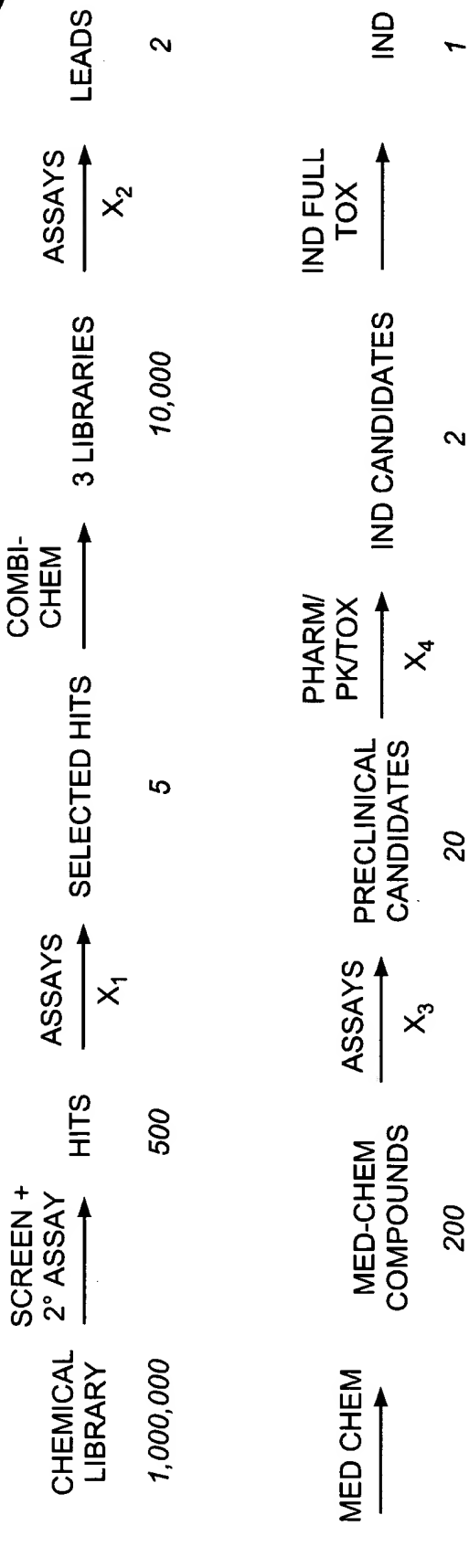


FIG. 1

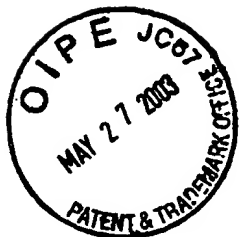


$X_1, X_2, X_3 =$ PHYSIOCHEMICAL ANALYSIS
IN VITRO TOXICOLOGY
GENE EXPRESSION PROFILING

$X_4 =$ IN VIVO GENE PROFILING

$X_5 =$ SURROGATE MARKER

FIG. 2



3/49

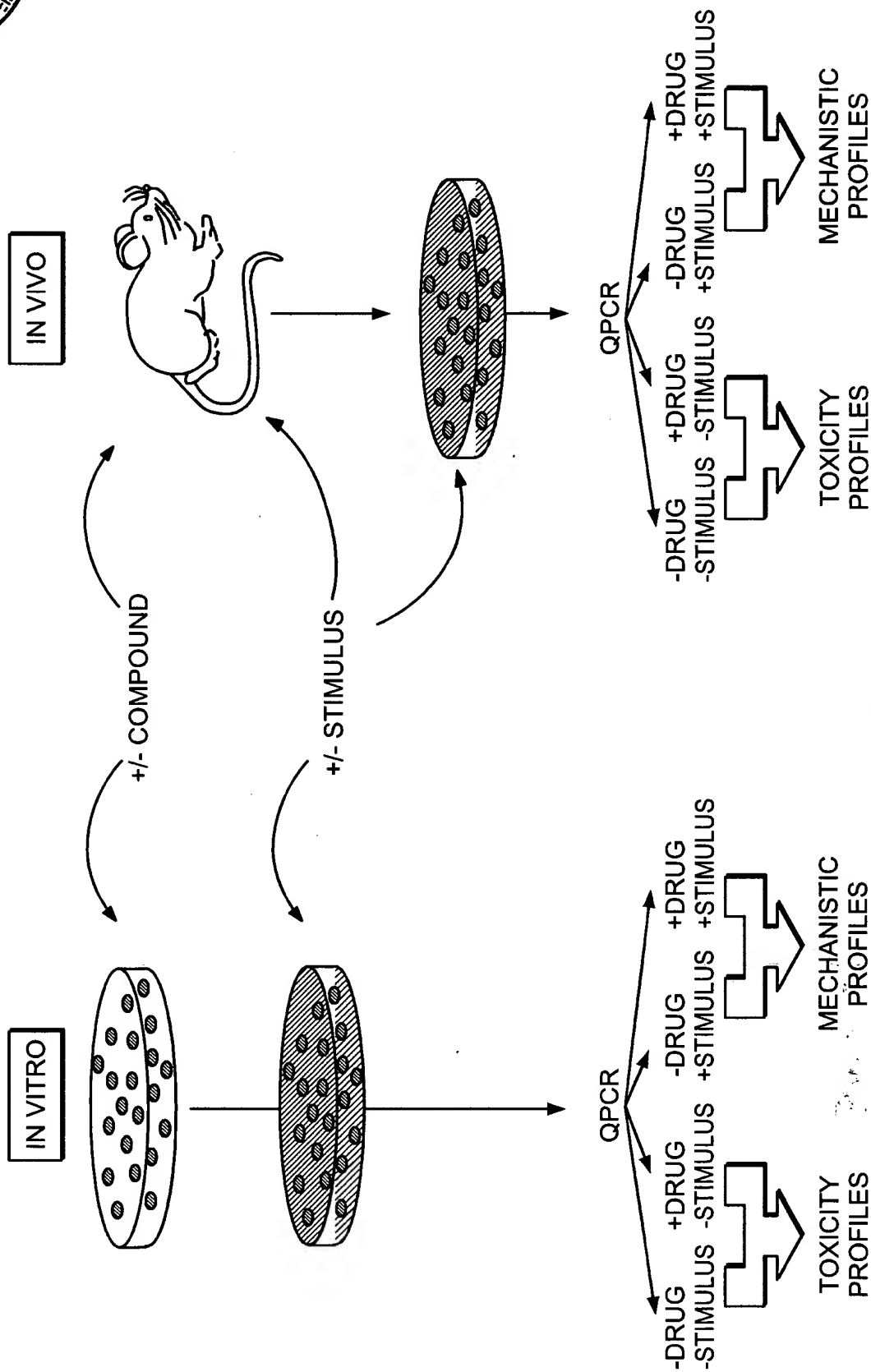


FIG. 3



4/49

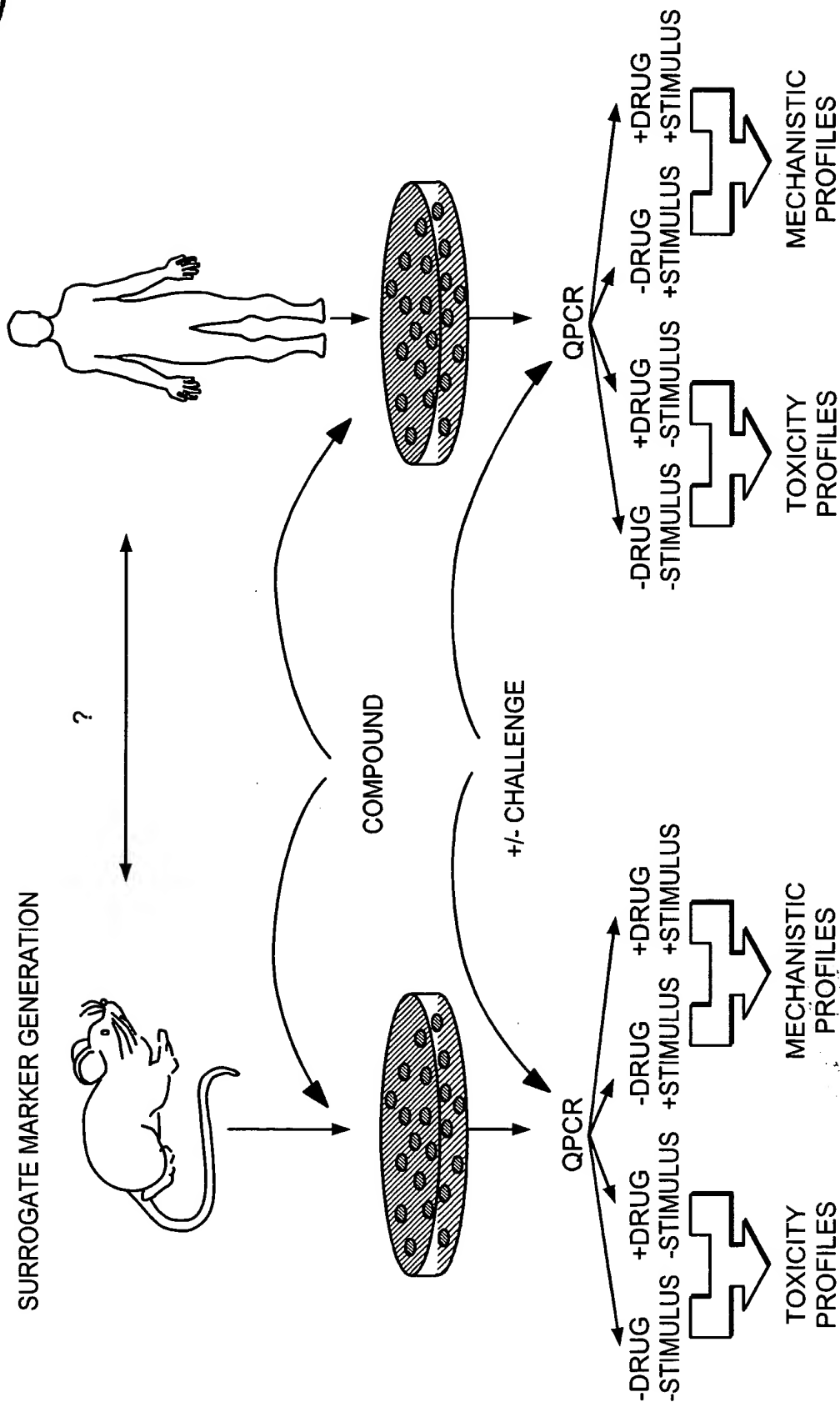


FIG. 4



5/49

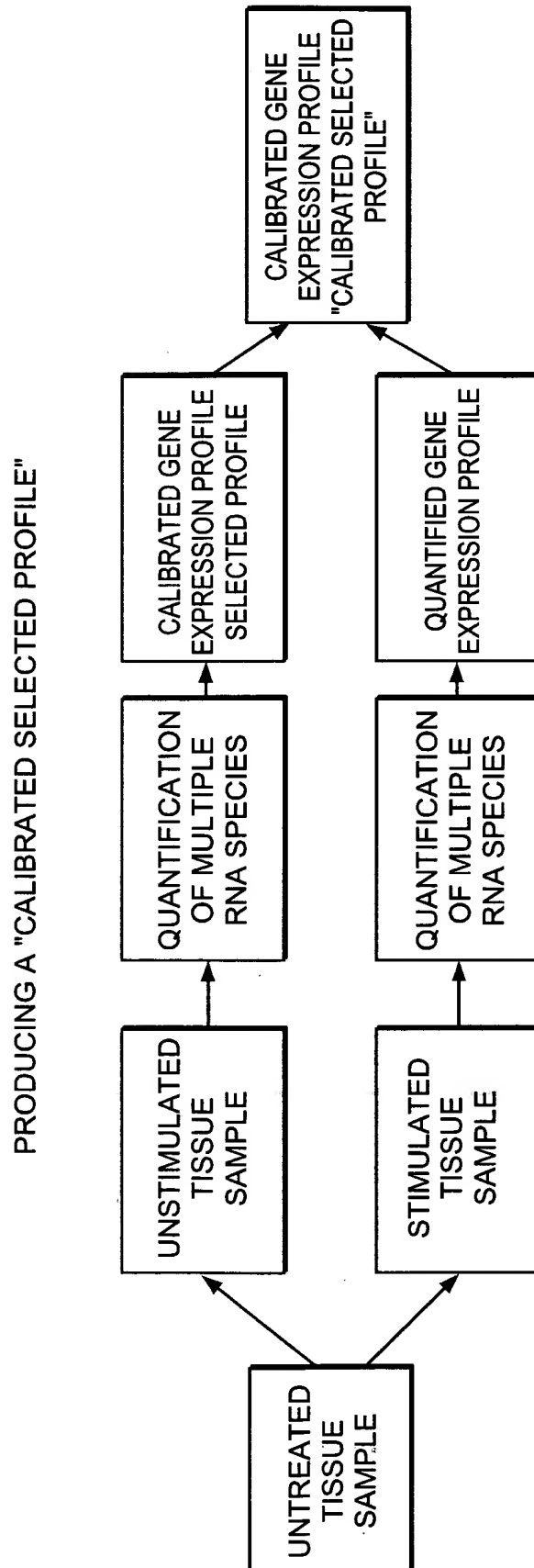


FIG. 5

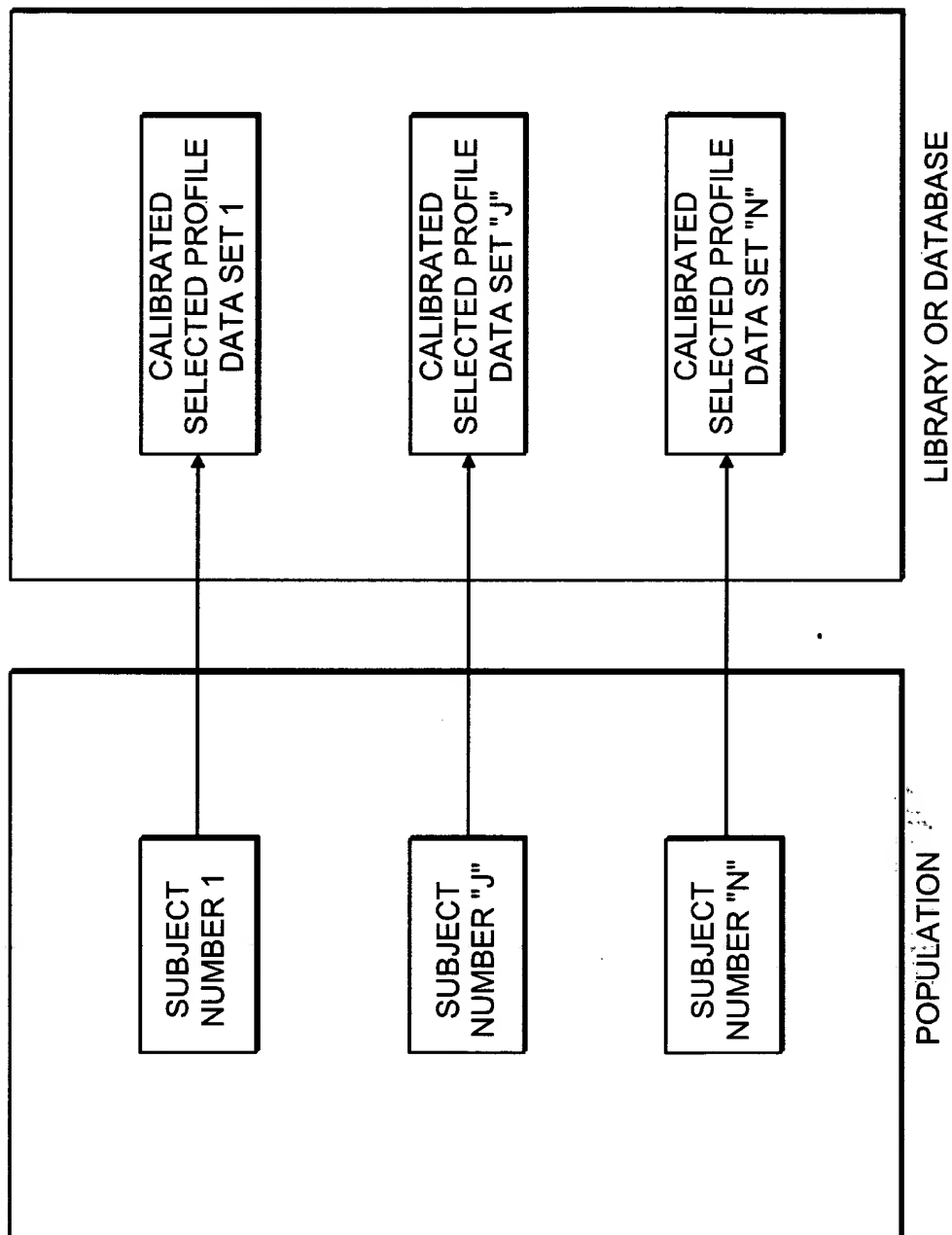
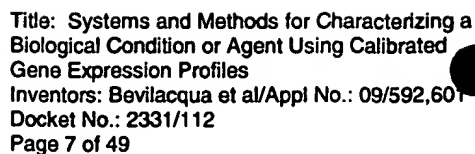


FIG. 6

100-037 07/04/2003



7/49



8/49

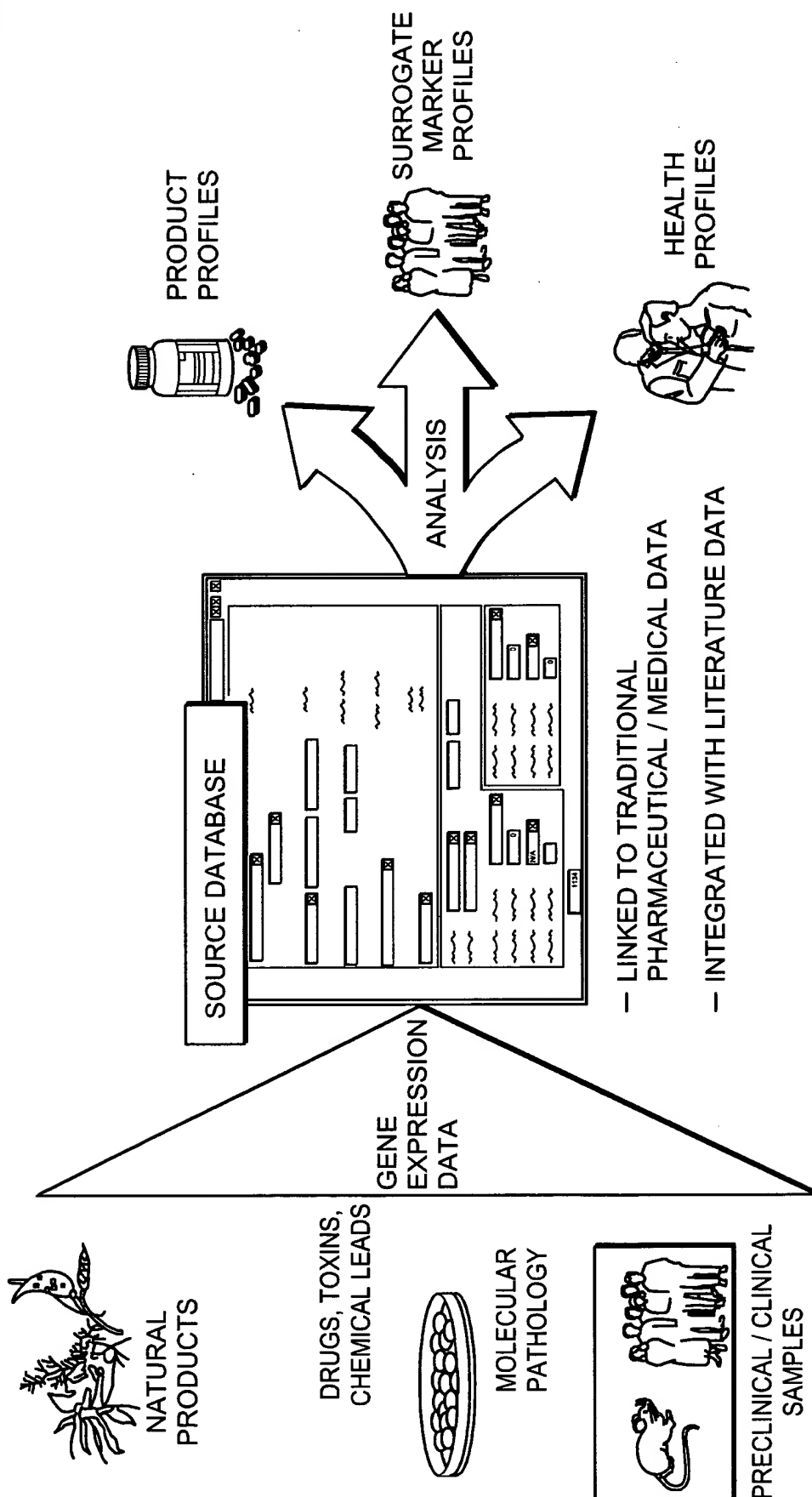


FIG. 8



9/49

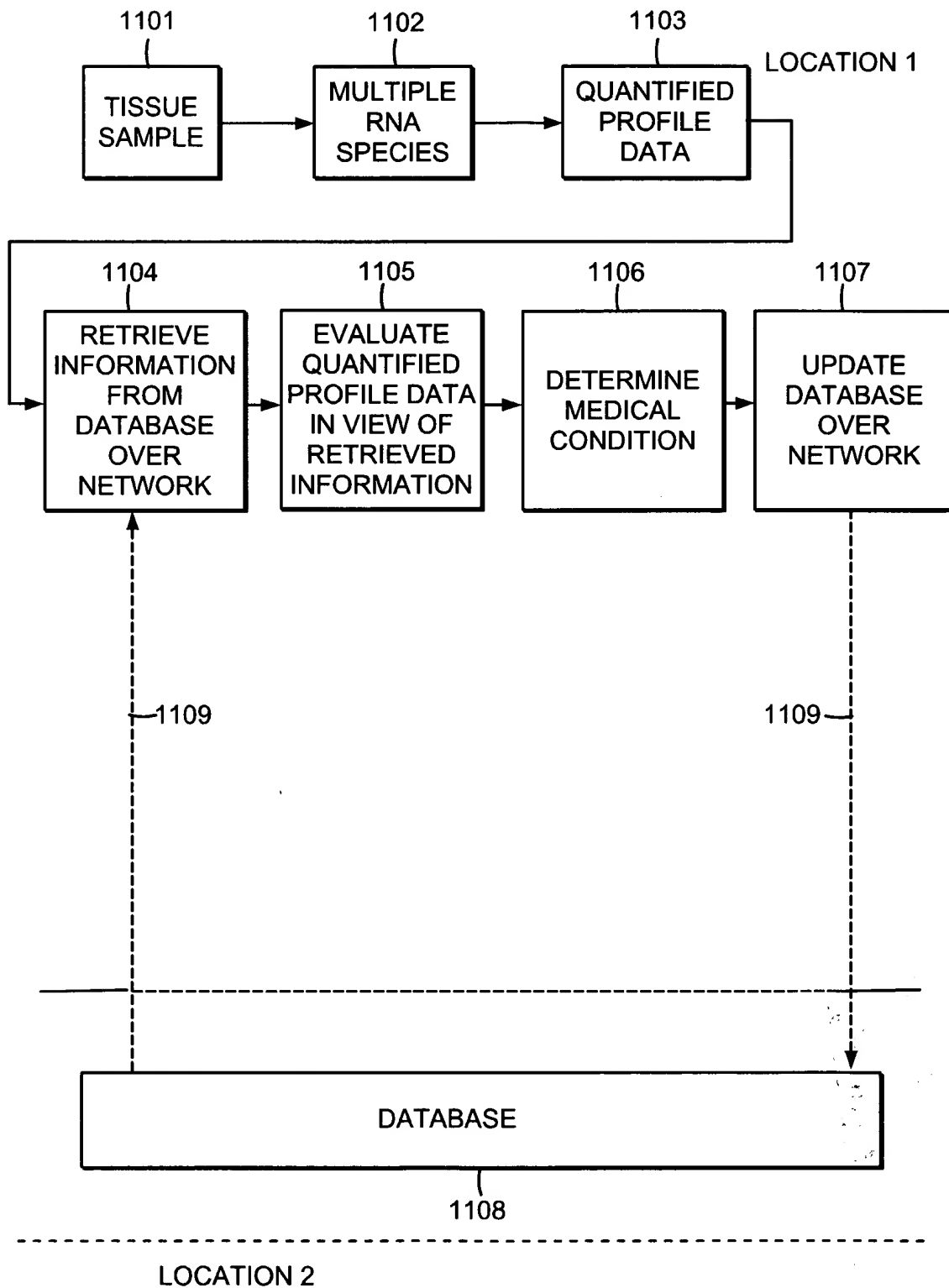


FIG. 9



10/49

PHASE TWO CLINICAL TRIAL DESIGN USING SELECTED PROFILING

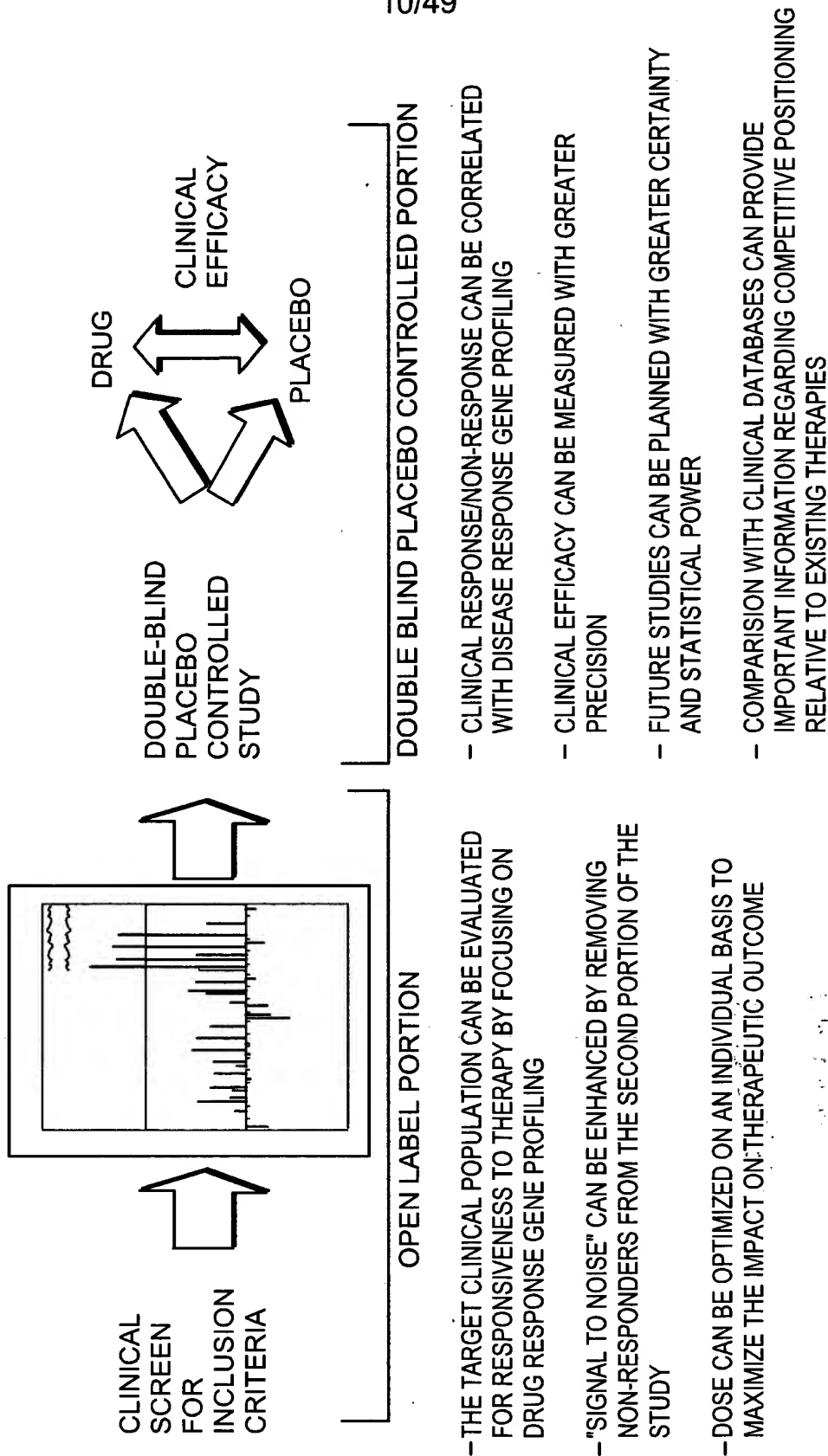


FIG. 10a

FIG. 10b

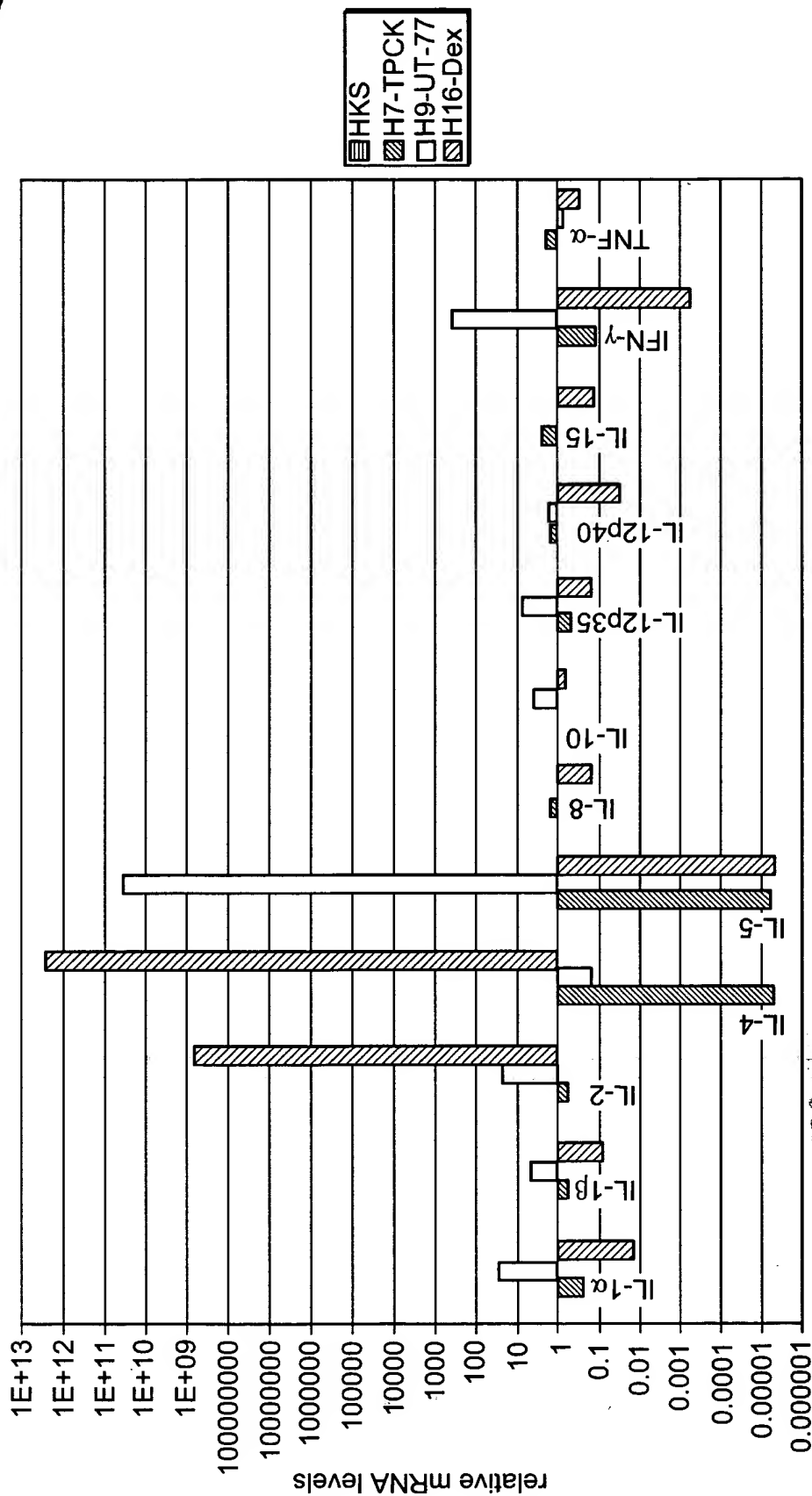


FIG. 11a



12/49

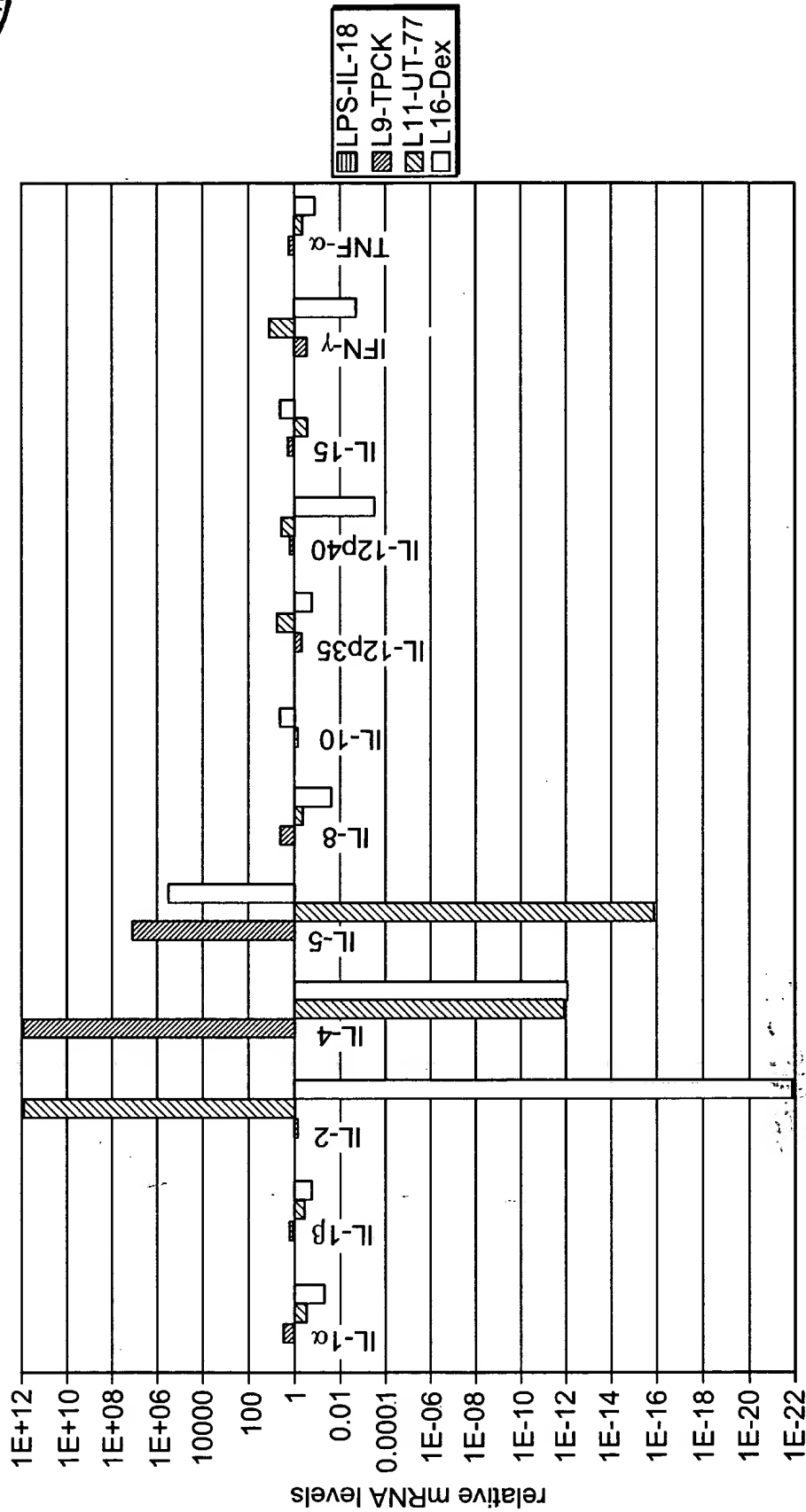


FIG. 11b



COMPARATIVE DRUG PROFILING SHOWS DIFFERENCES AMONG ANTI-INFLAMMATORY DRUGS WITH DIFFERENT MECHANISM OF ACTION

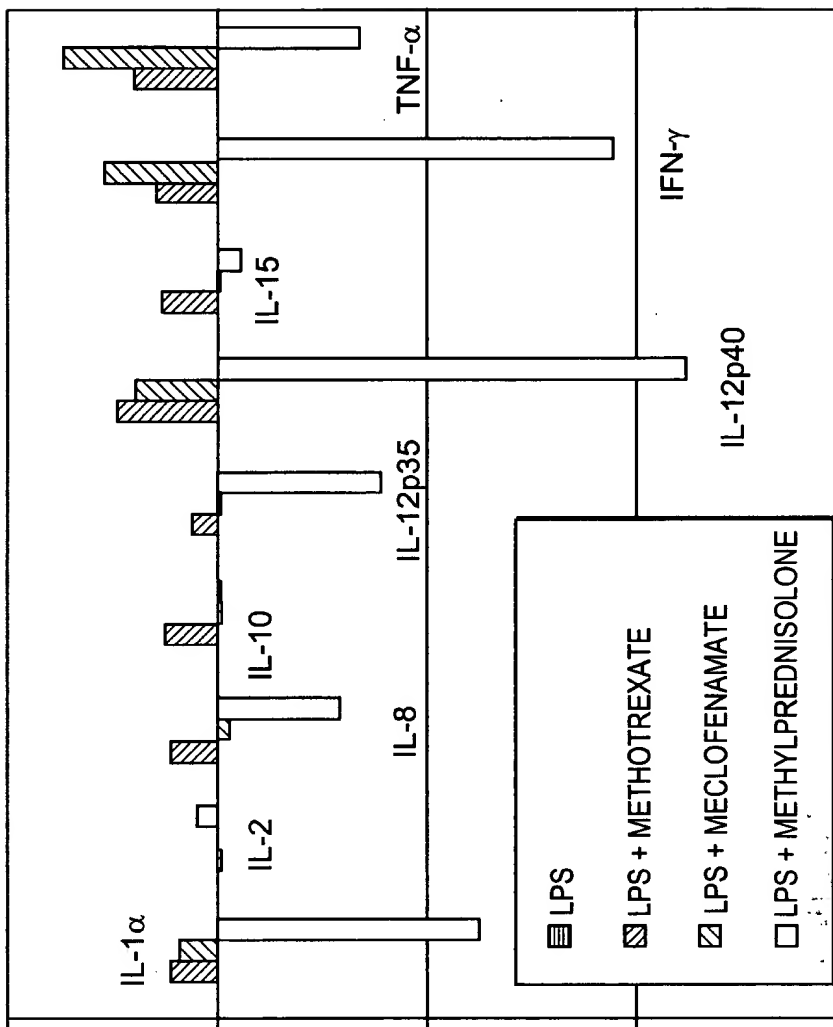


FIG. 12a



14/49

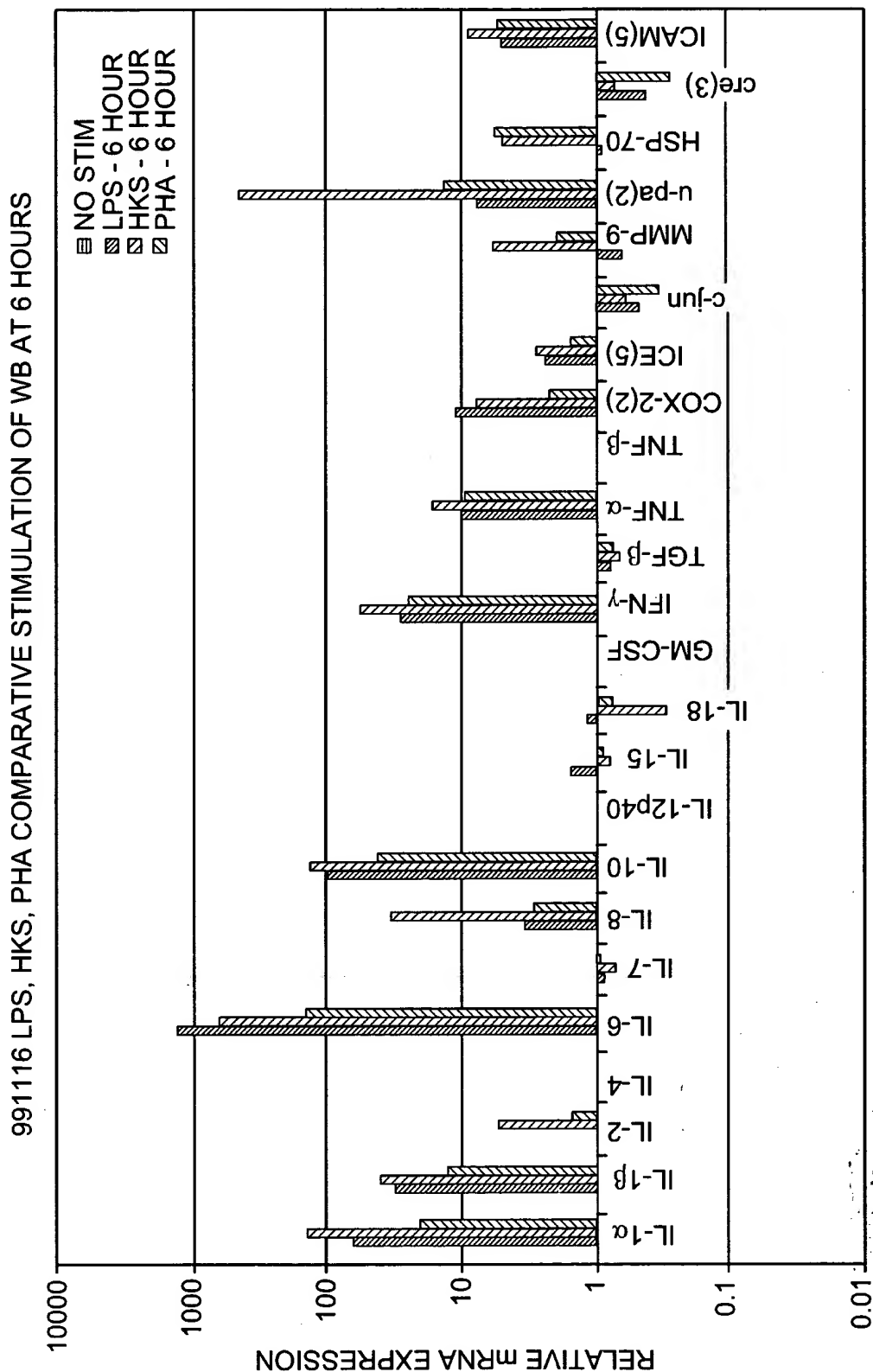


FIG. 13a

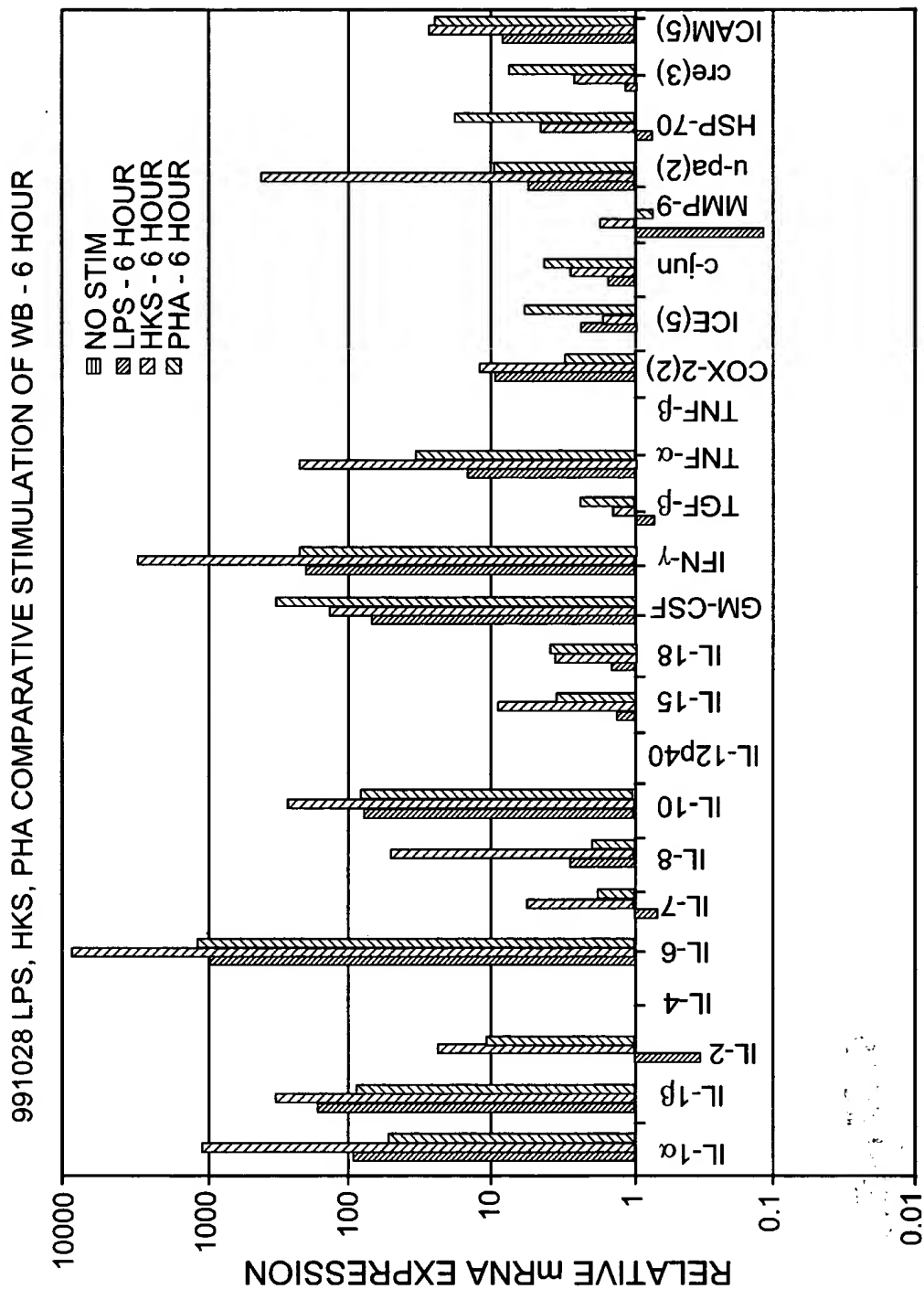


FIG. 13b



16/49

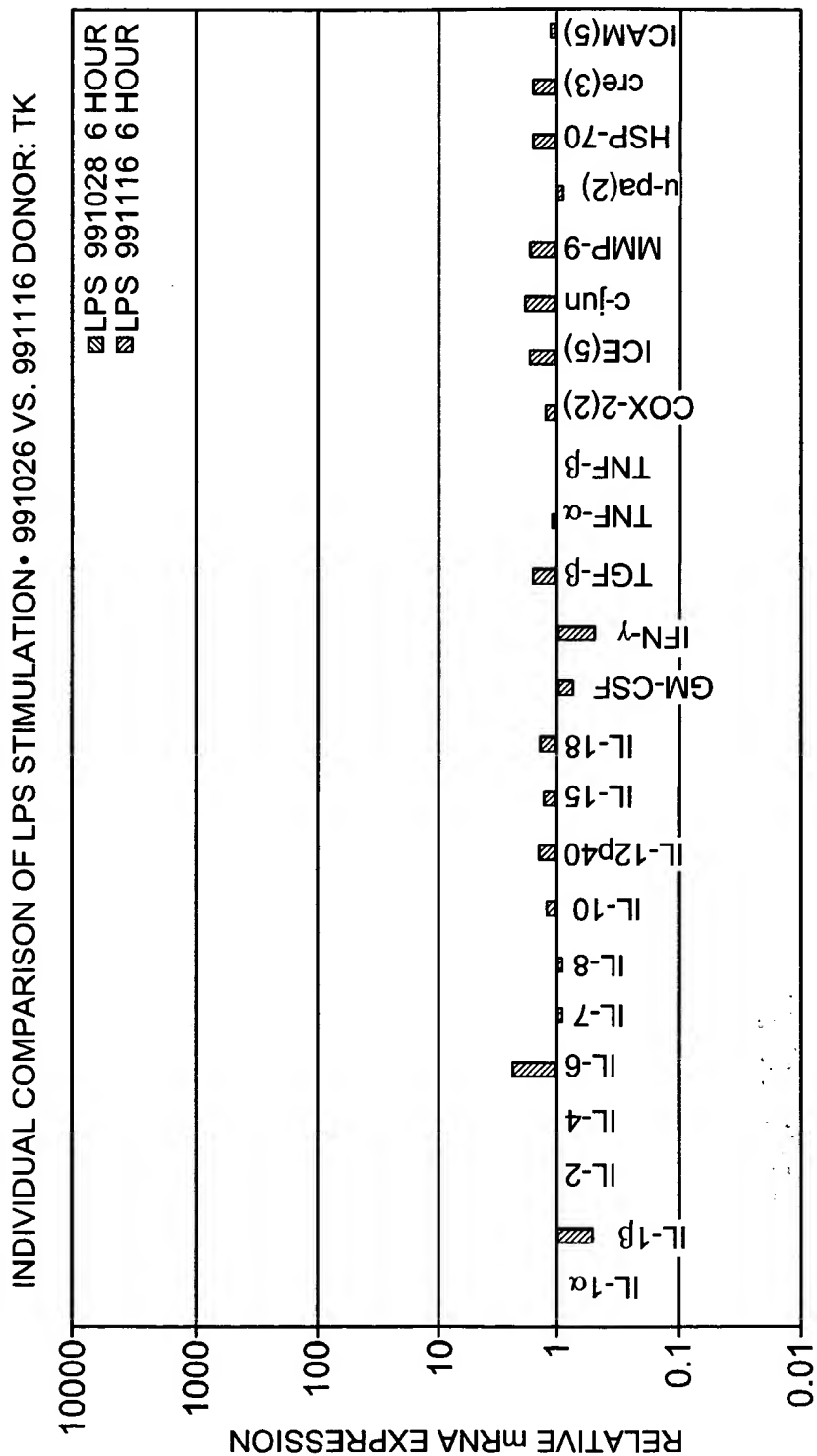


FIG. 13c



17/49

INDIVIDUAL COMPARISON OF DONOR SAMPLE WITH NO STIMULATION
6 HOUR - 991028 VS. 991116 DONOR: TK

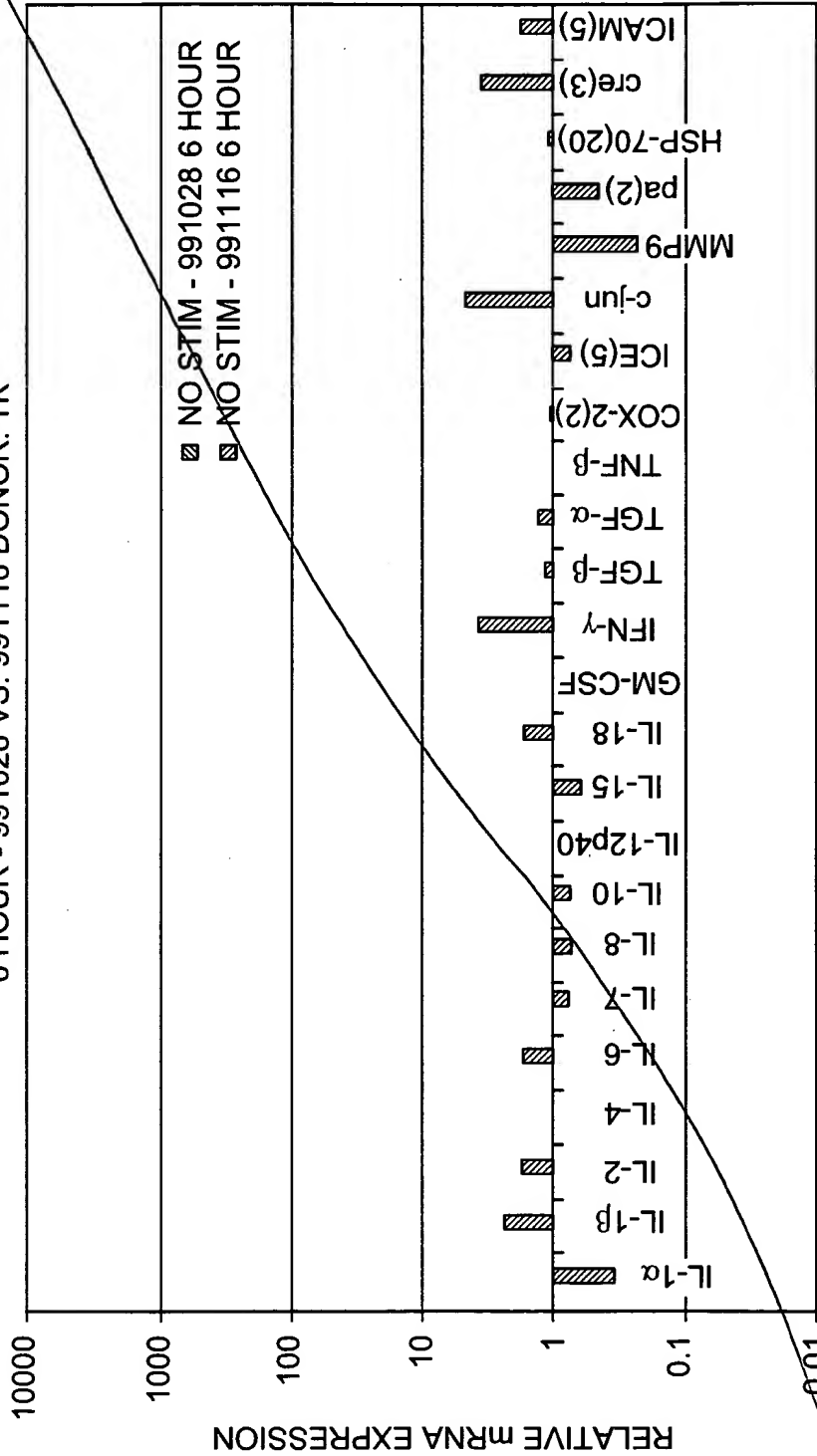
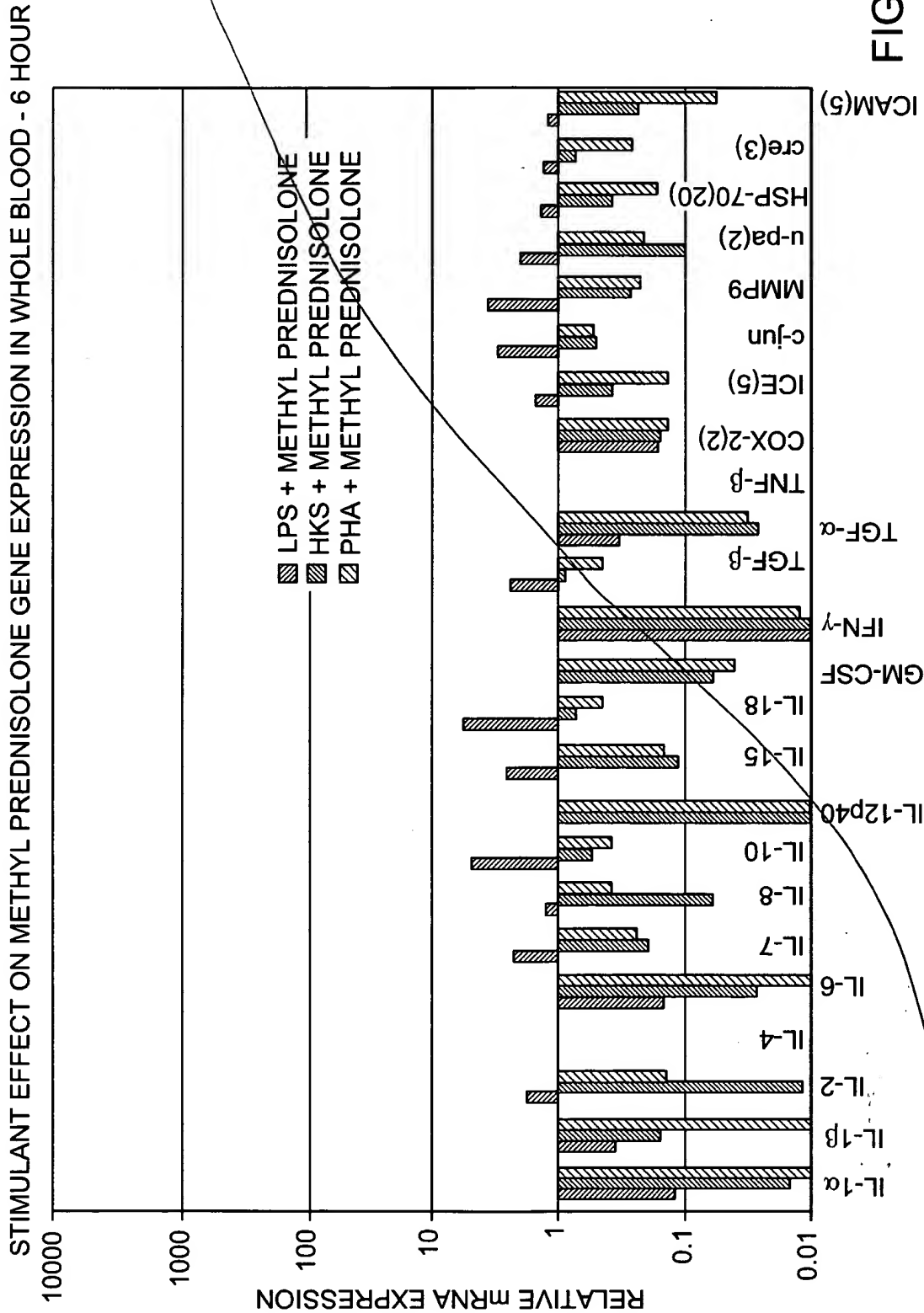


FIG. 13d



18/49

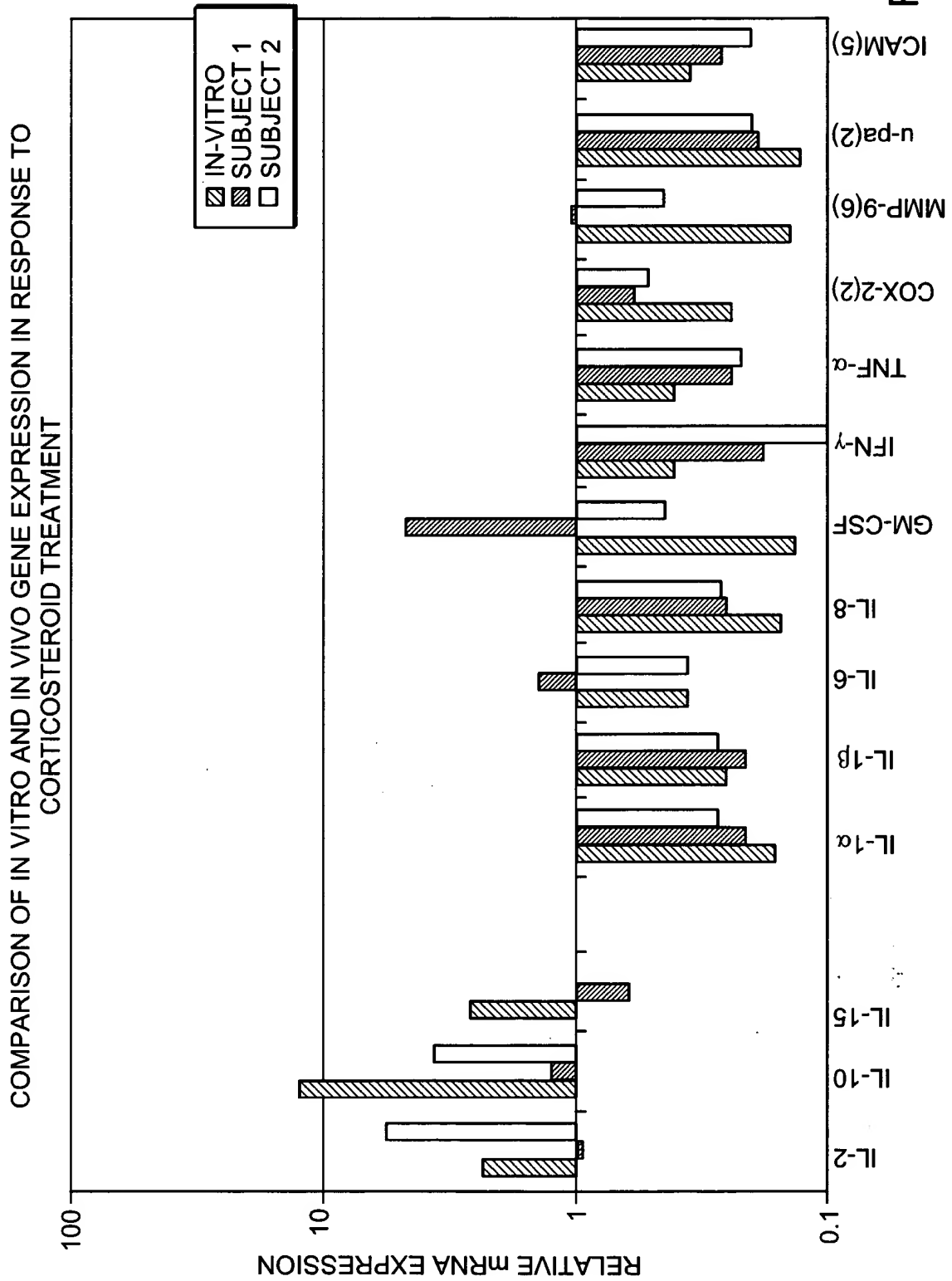
FIG. 14





19/49

FIG. 15





20/49

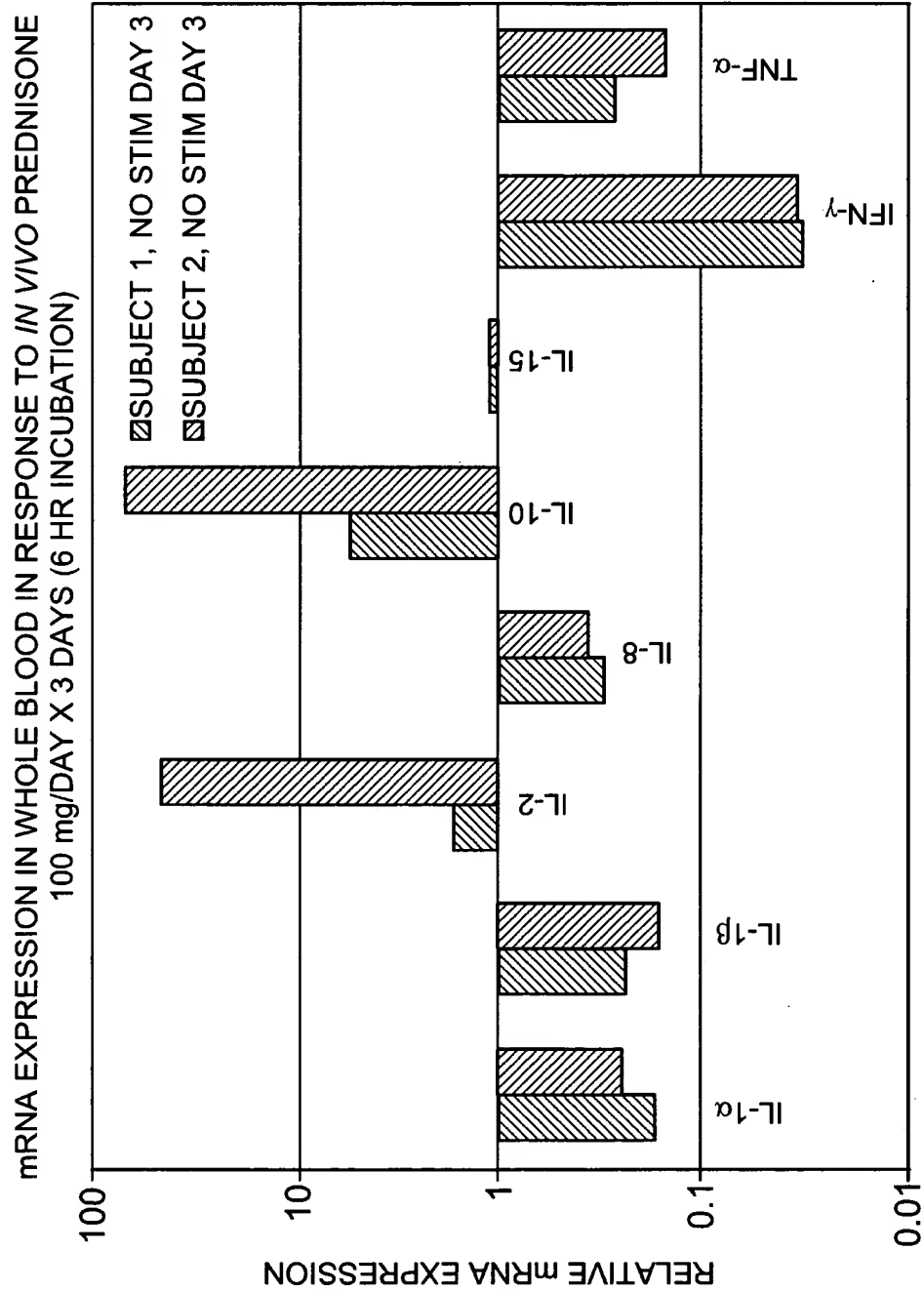


FIG. 16a

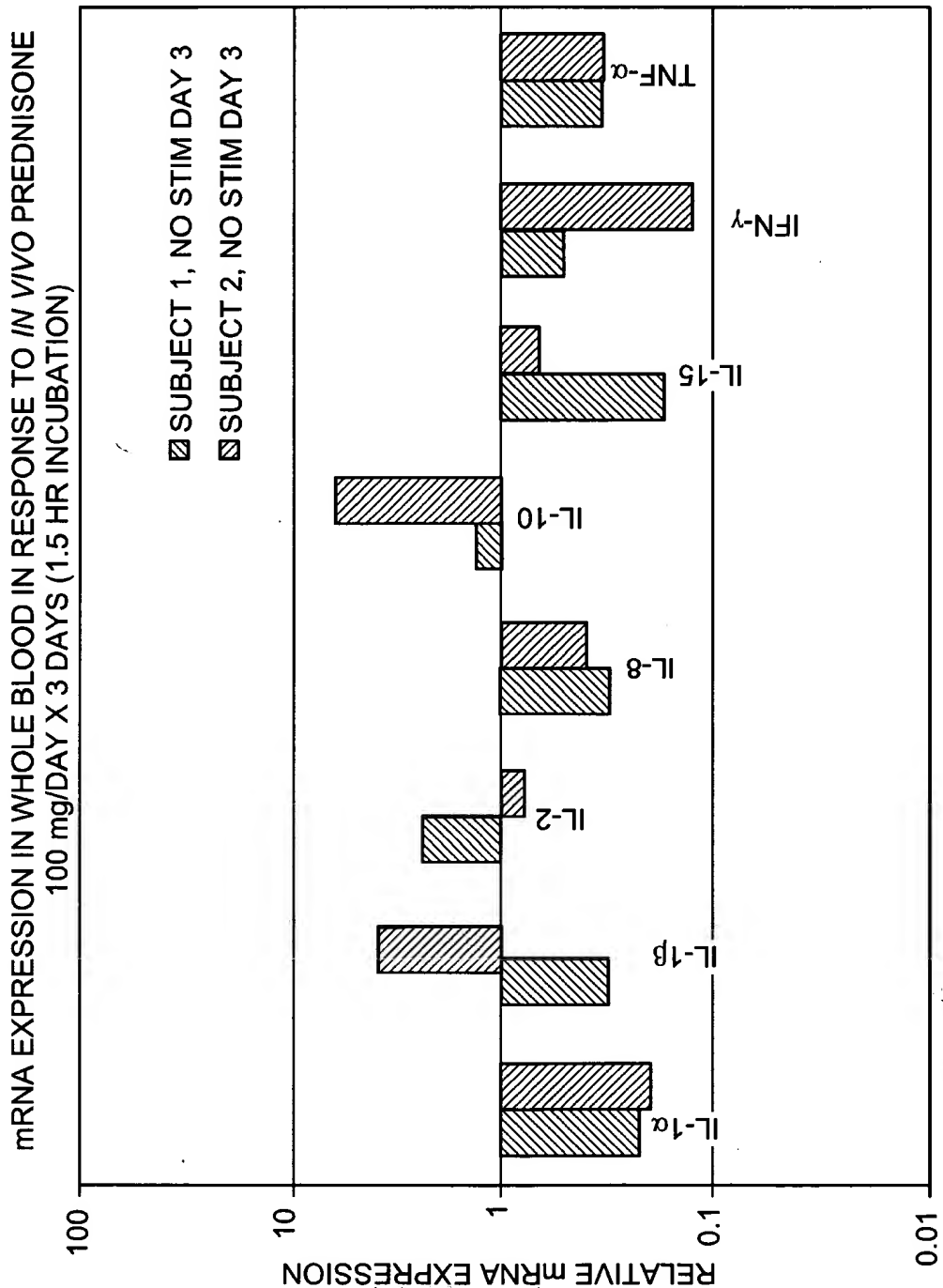


FIG. 16b



22/49

INDIVIDUAL COMPARISON - 991028 VS. 991116
DONOR: TK

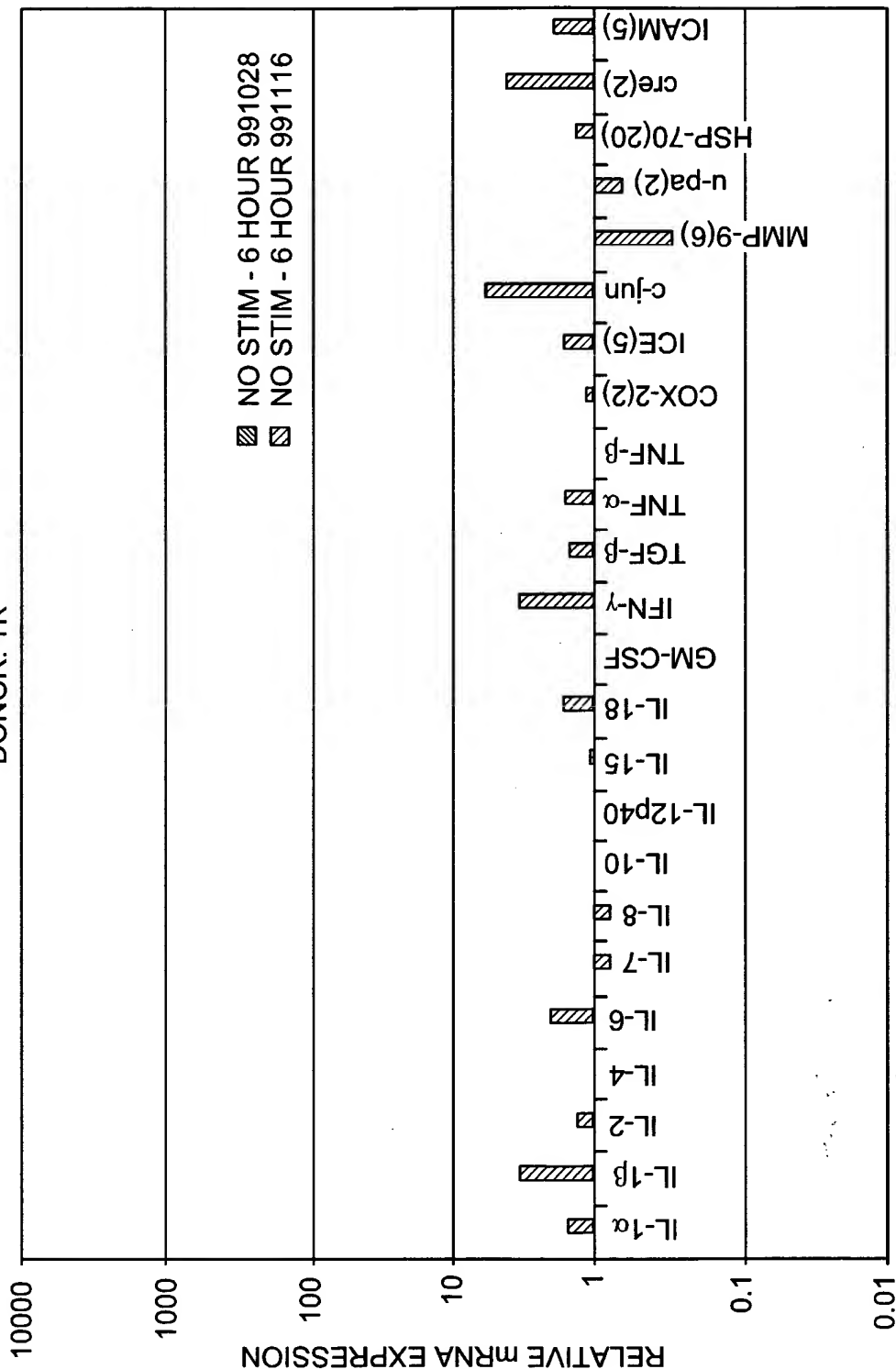


FIG. 17



23/49

PB001 STUDY 2, STAGE 3
EFFECTS OF DRUG ON WHOLE BLOOD
DONOR 1

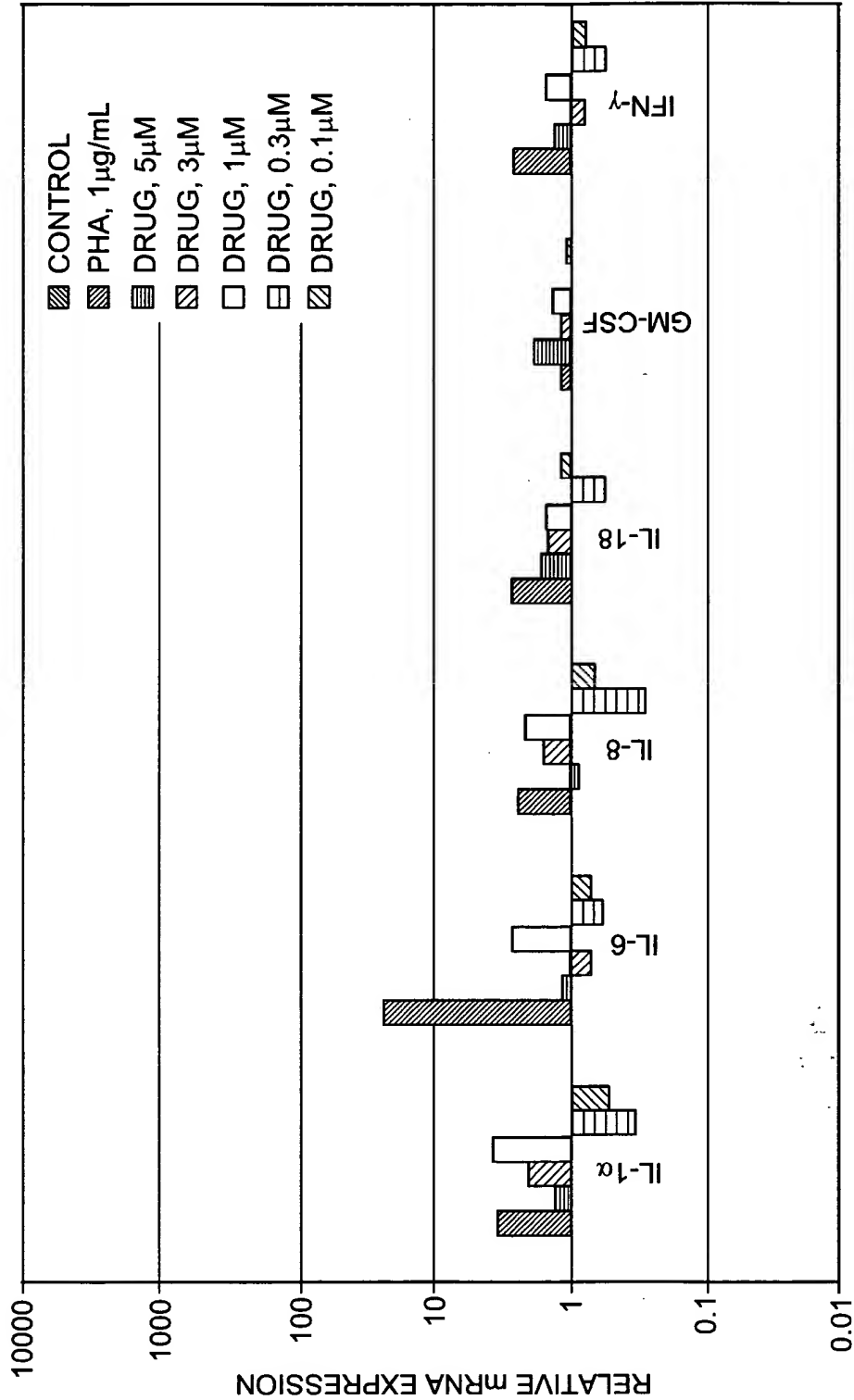


FIG. 18a



24/49

PB001 STUDY 2, STAGE 3
EFFECTS OF DRUG ON WHOLE BLOOD
DONOR 2

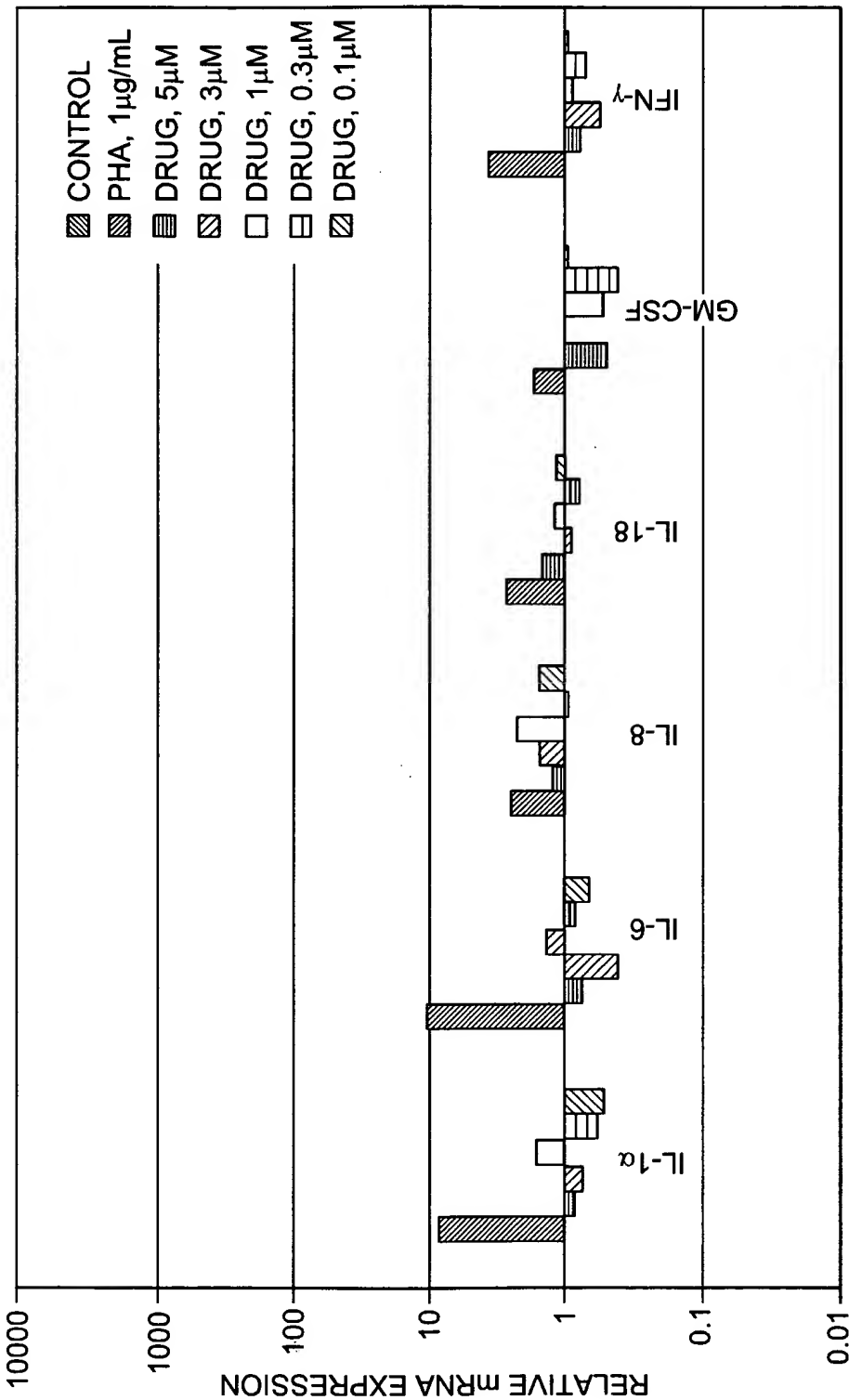


FIG. 18b



25/49

PB001 STUDY 2, STAGE 3
EFFECTS OF DRUG ON WHOLE BLOOD
DONOR 3

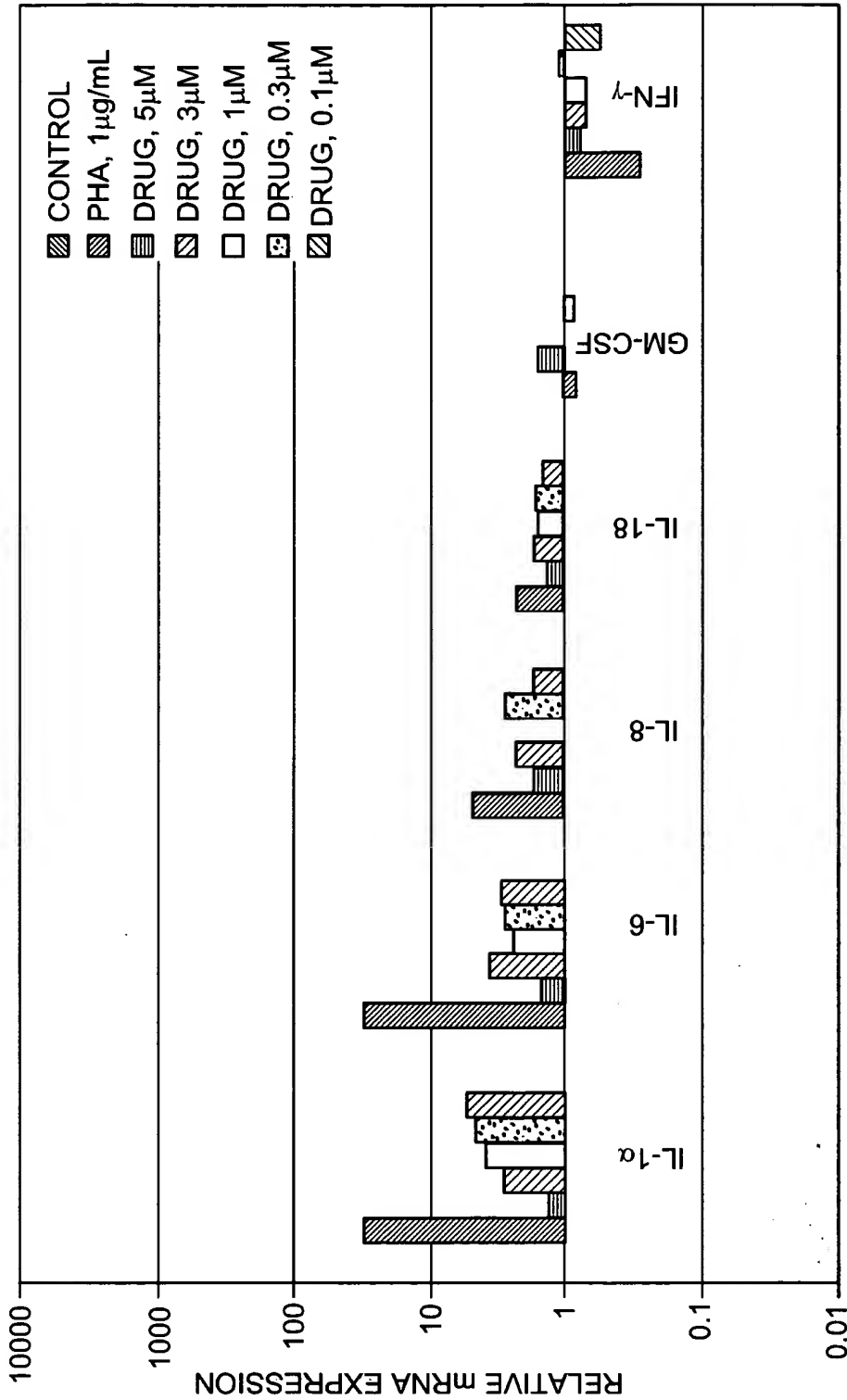


FIG. 18c



26/49

PB001 STUDY 2, STAGE 3
EFFECTS OF DRUG ON WHOLE BLOOD
DONOR 4

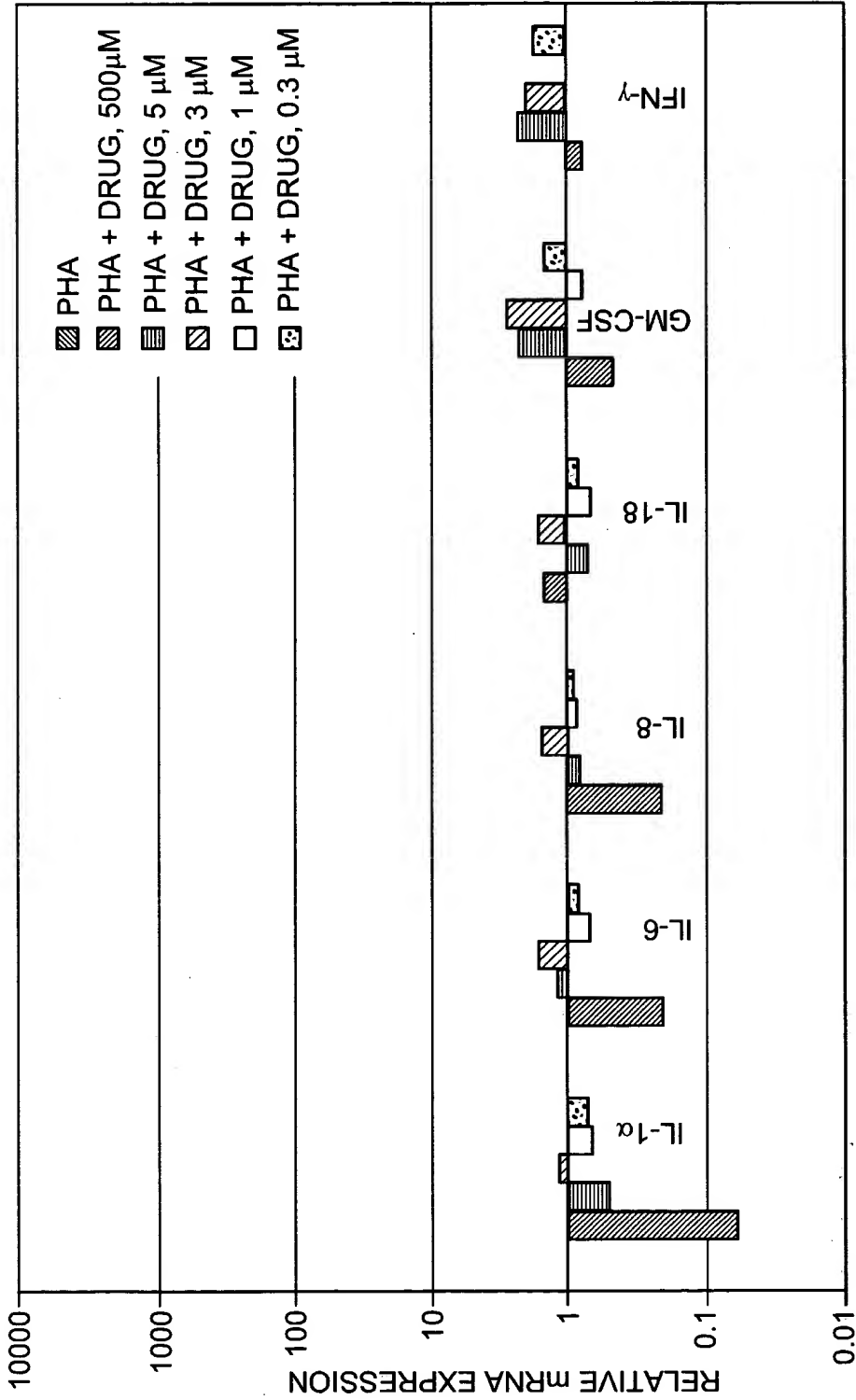


FIG. 18d



27/49

PB001 STUDY 2, STAGE 3
EFFECTS OF DRUG ON WHOLE BLOOD
DONOR 5

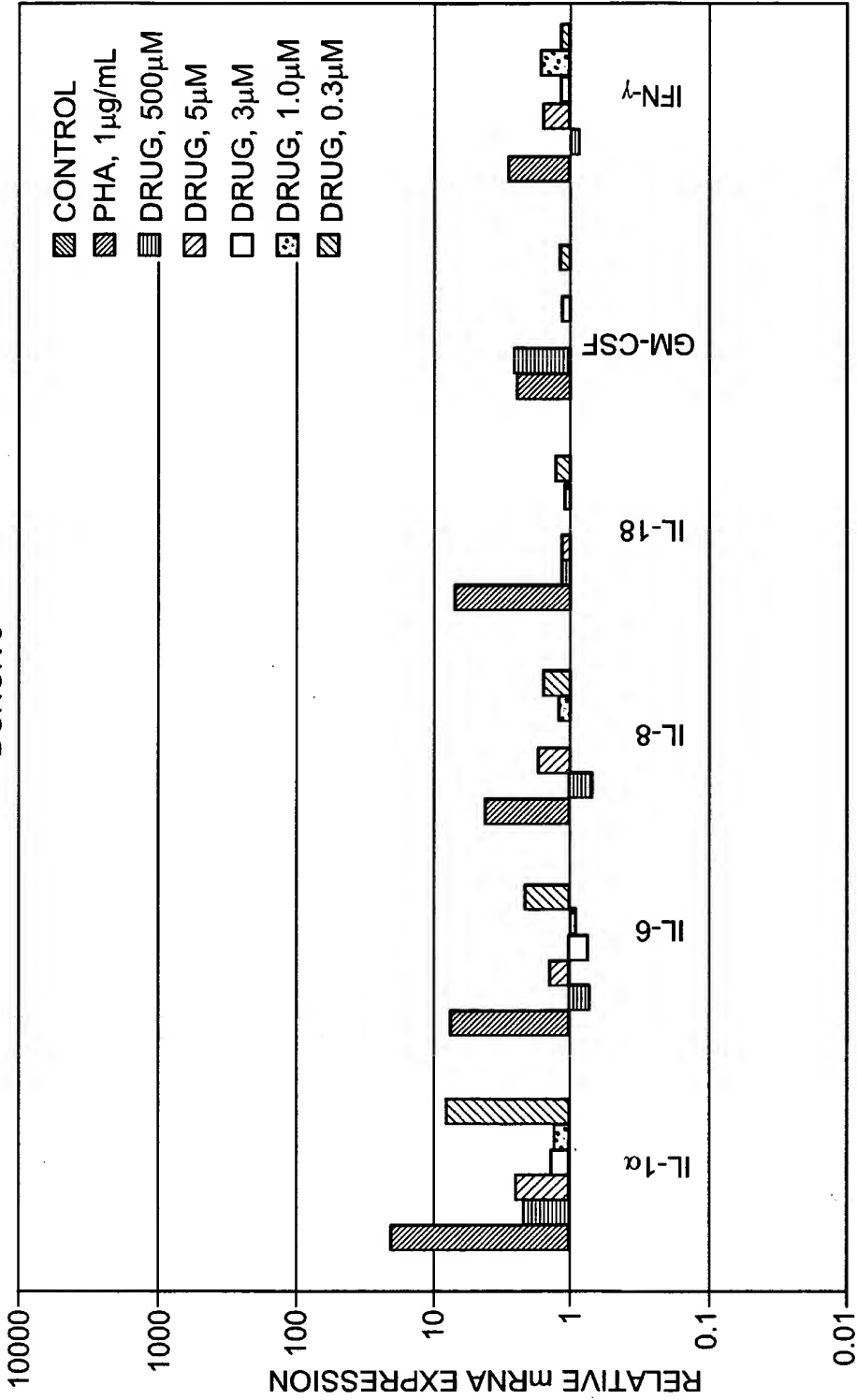


FIG. 18e



28/49

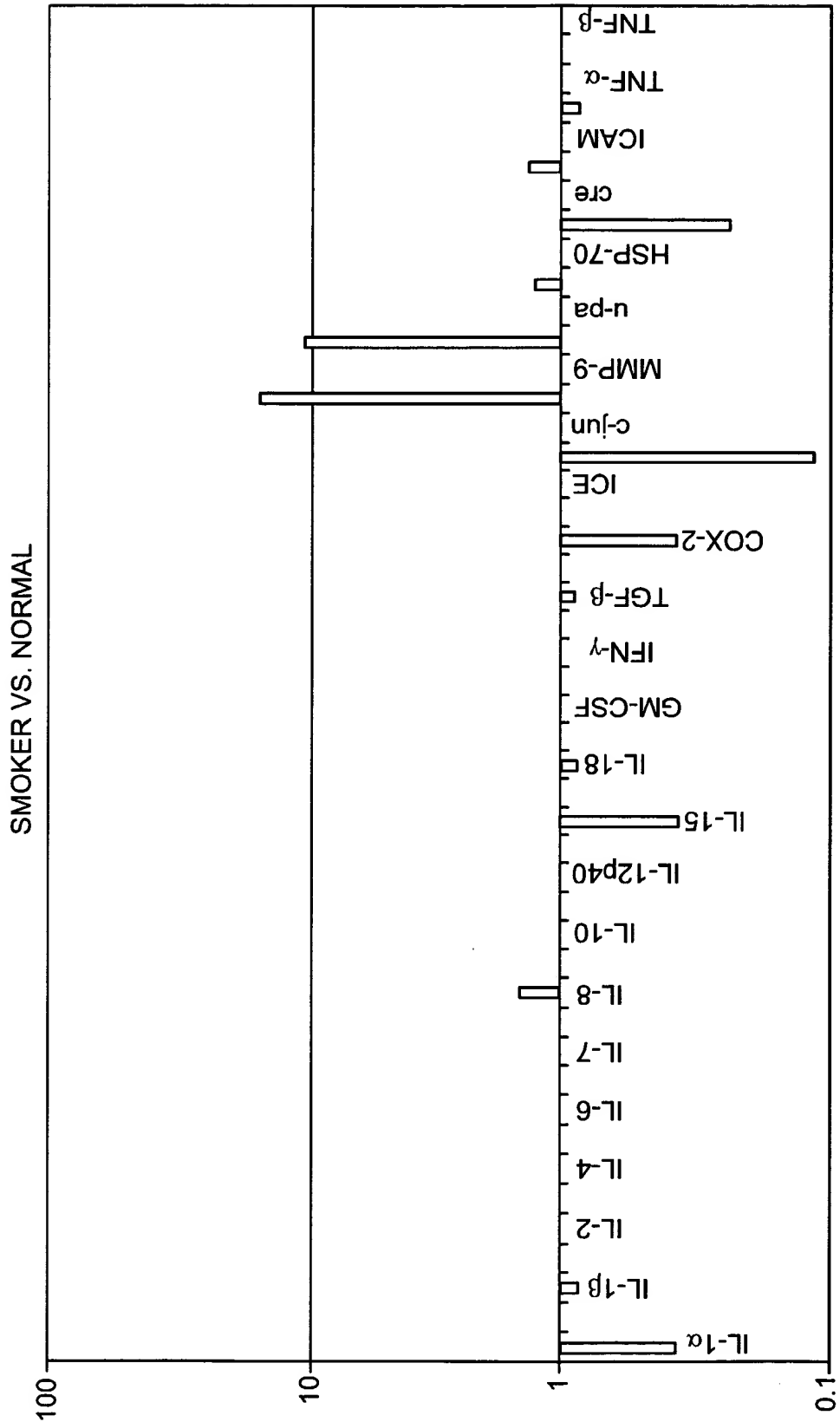
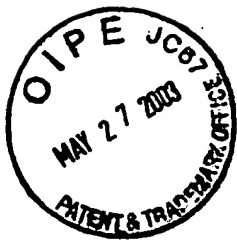


FIG. 19a

2003/05/27



29/49

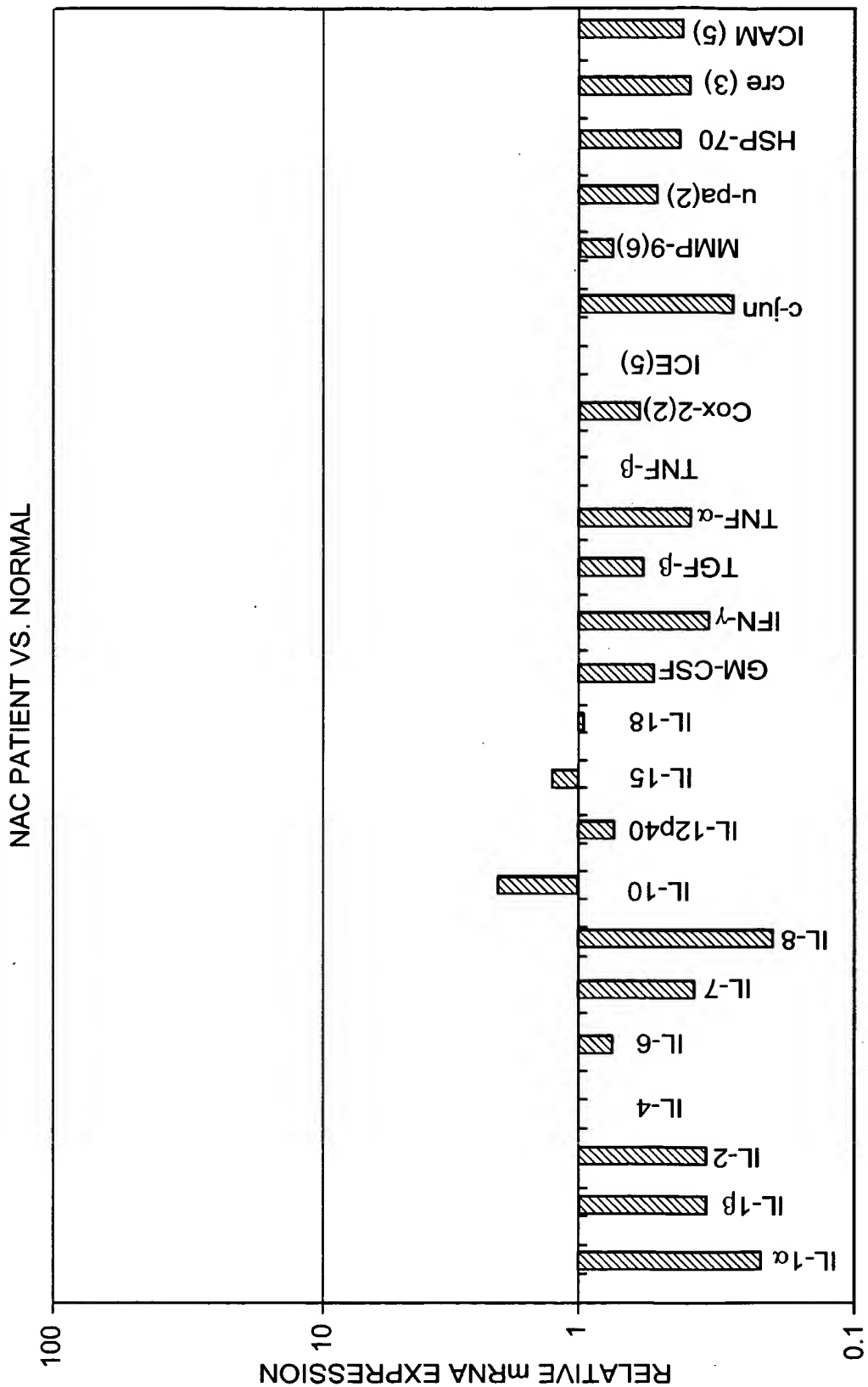


FIG. 19b



30/49

EXPRESSION OF GST-P GENE IN INDIVIDUAL RATS FOLLOWING A TOXIC DOSE OF ACETAMINOPHEN

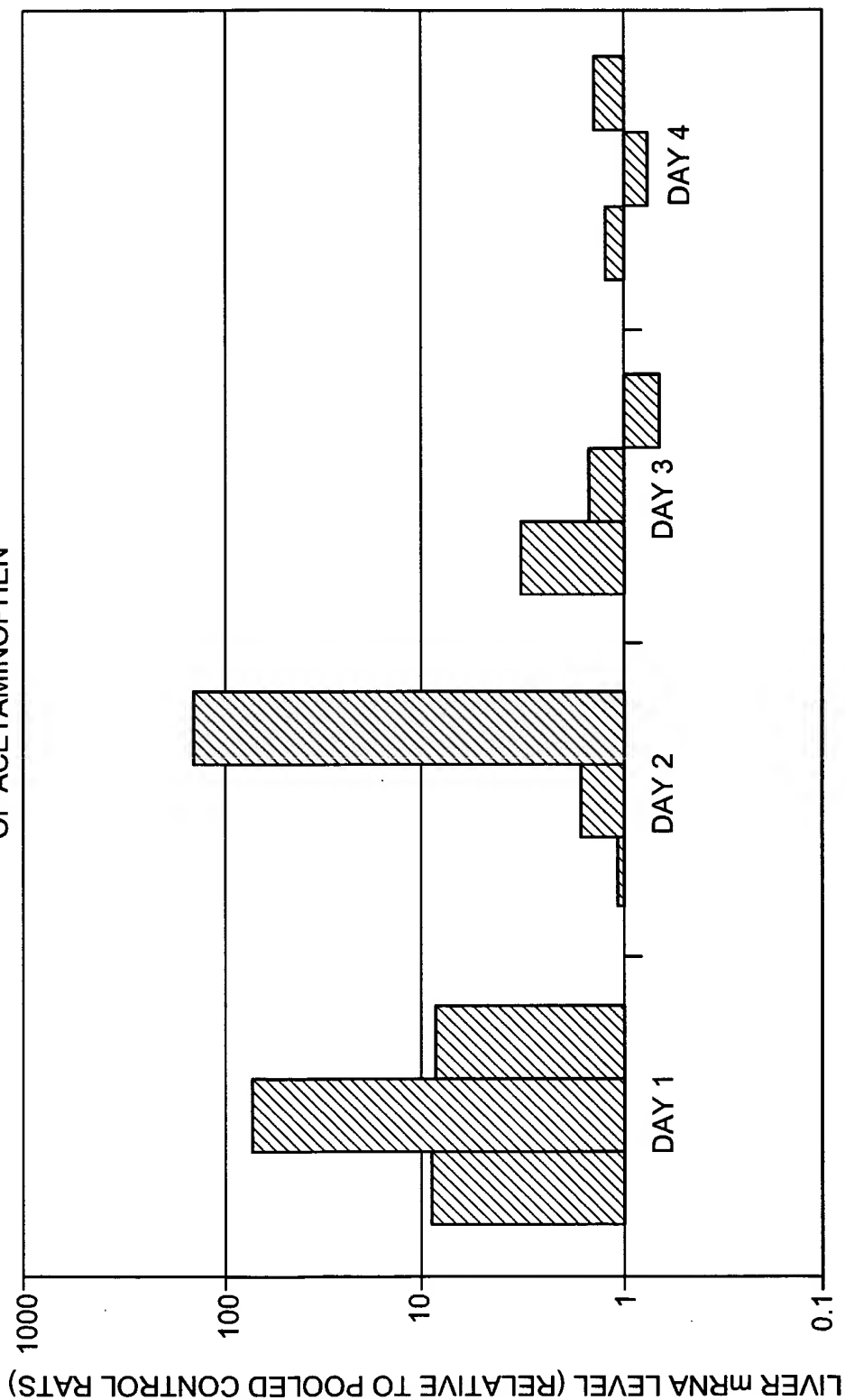


FIG. 20



31/49

COMPARATIVE HERBAL PROFILING SHOWS DIFFERENCES AMONG ANTI-INFLAMMATORY HERBS SUCH AS ECHINACEA, ARNICA AND SIBERIAN GINSENG

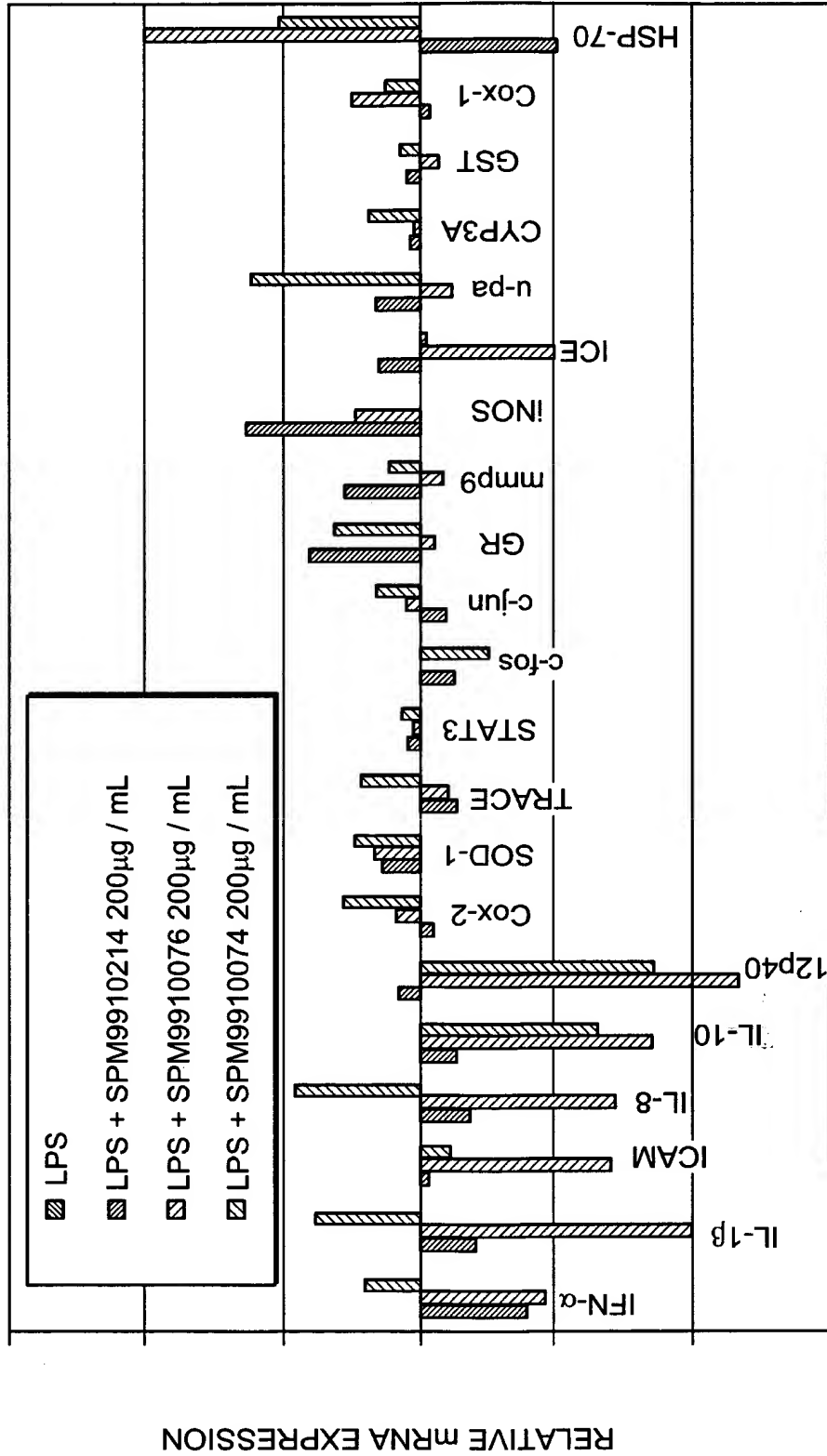
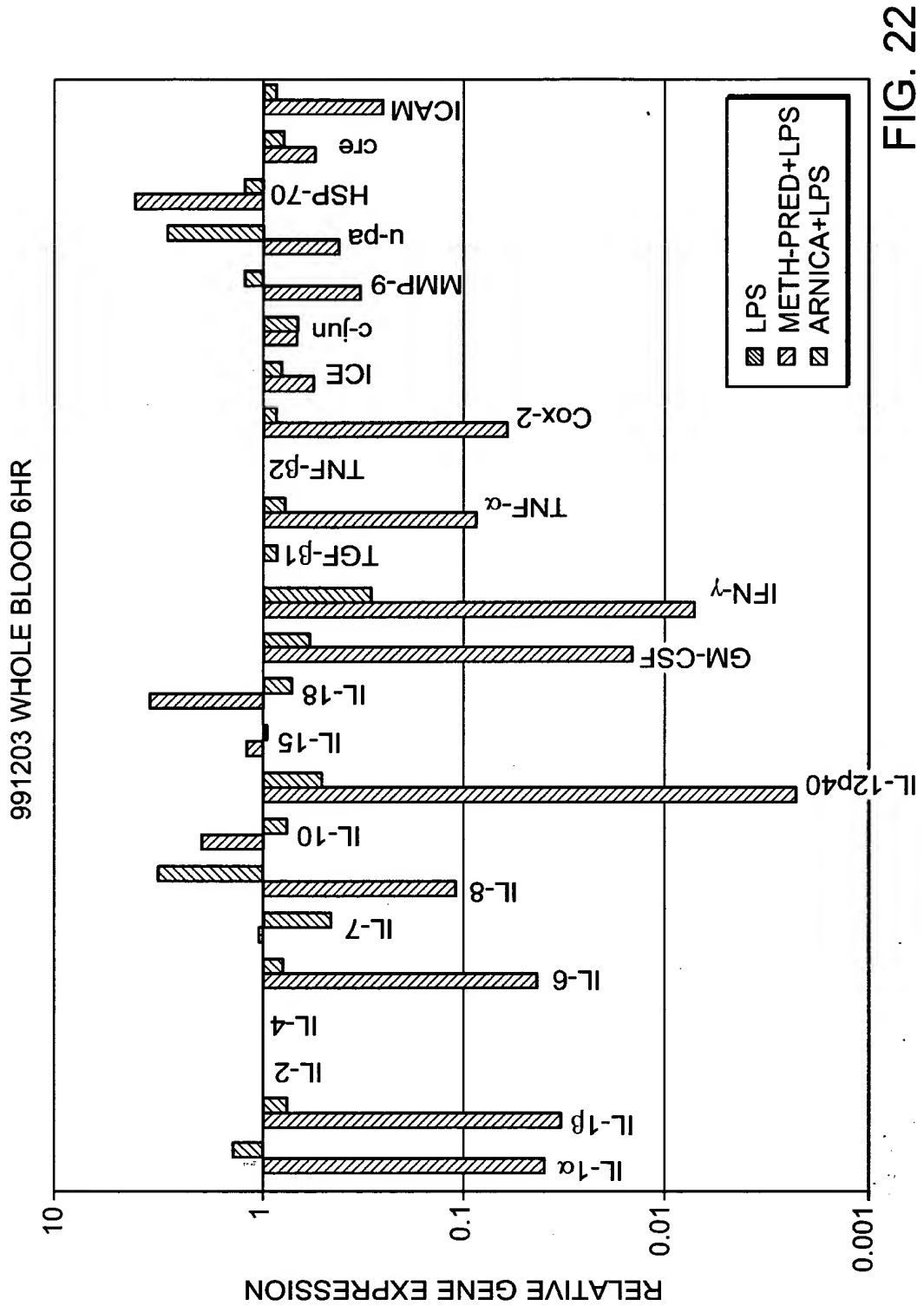


FIG. 21





33/49

SELECTED PROFILES CAN CORRELATE WITH A DOSE RESPONSE FOR A GIVEN HERBAL

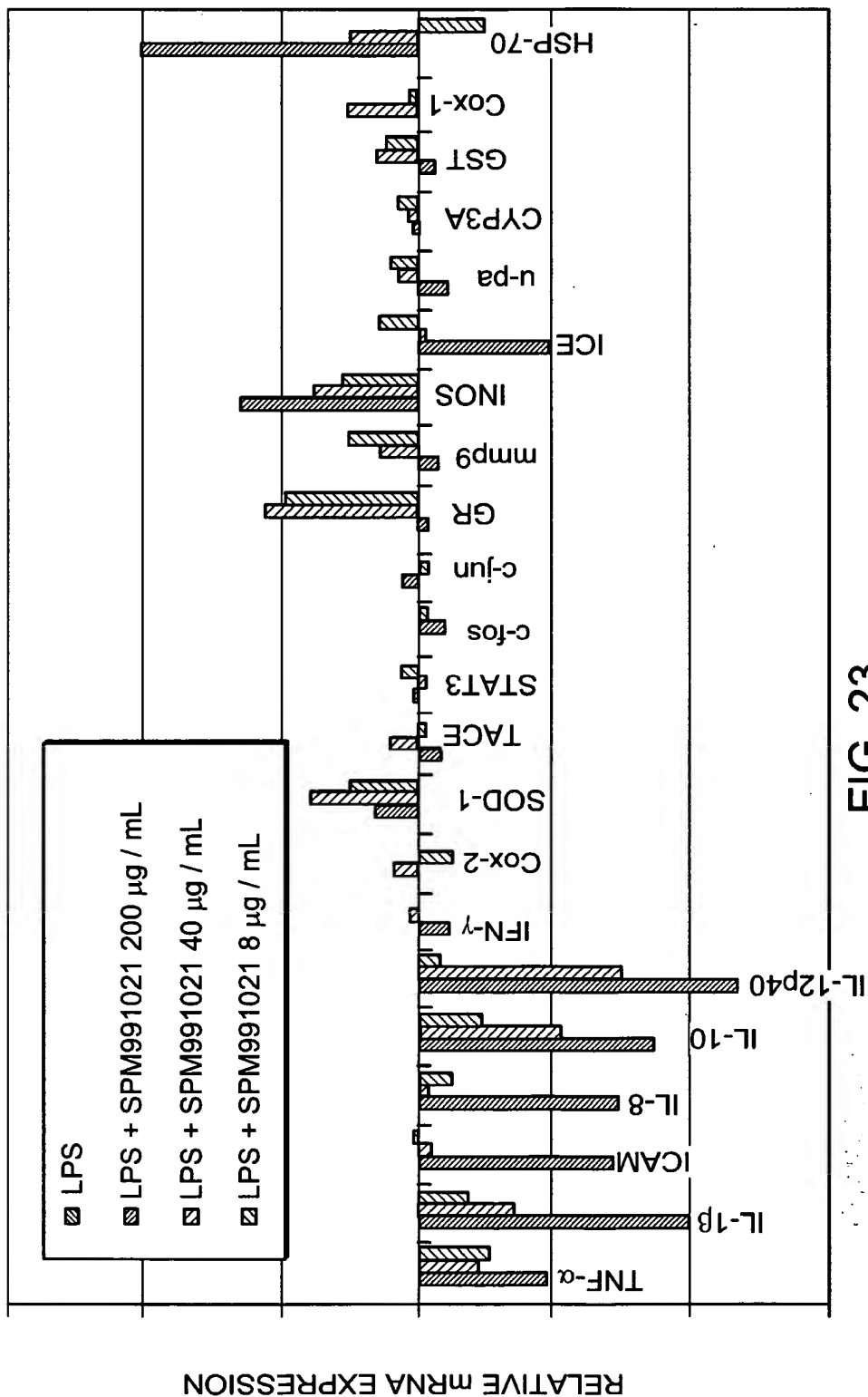


FIG. 23



SELECTED PROFILES REVEAL CONTAMINATION WITH ENDOTOXIN
AMONG DIFFERENT COMMERCIAL BRANDS AS REVEALED IN SPM010
AND SPM016

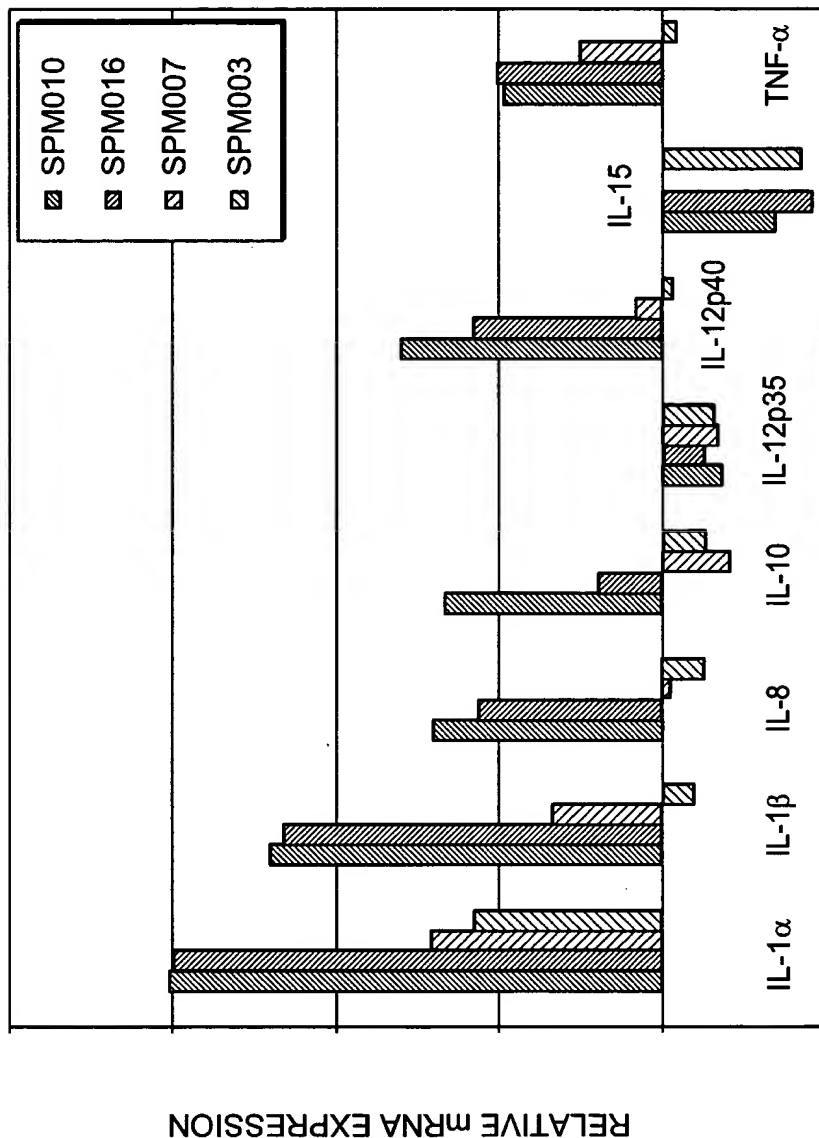


FIG. 24



35/49

HIGH DOSE COMPARISON OF UNSTIMULATED THP-1 CELL TREATMENT WITH THREE HERBAL PREPARATIONS SHOWS SIGNIFICANT VARIATION IN EFFICACY

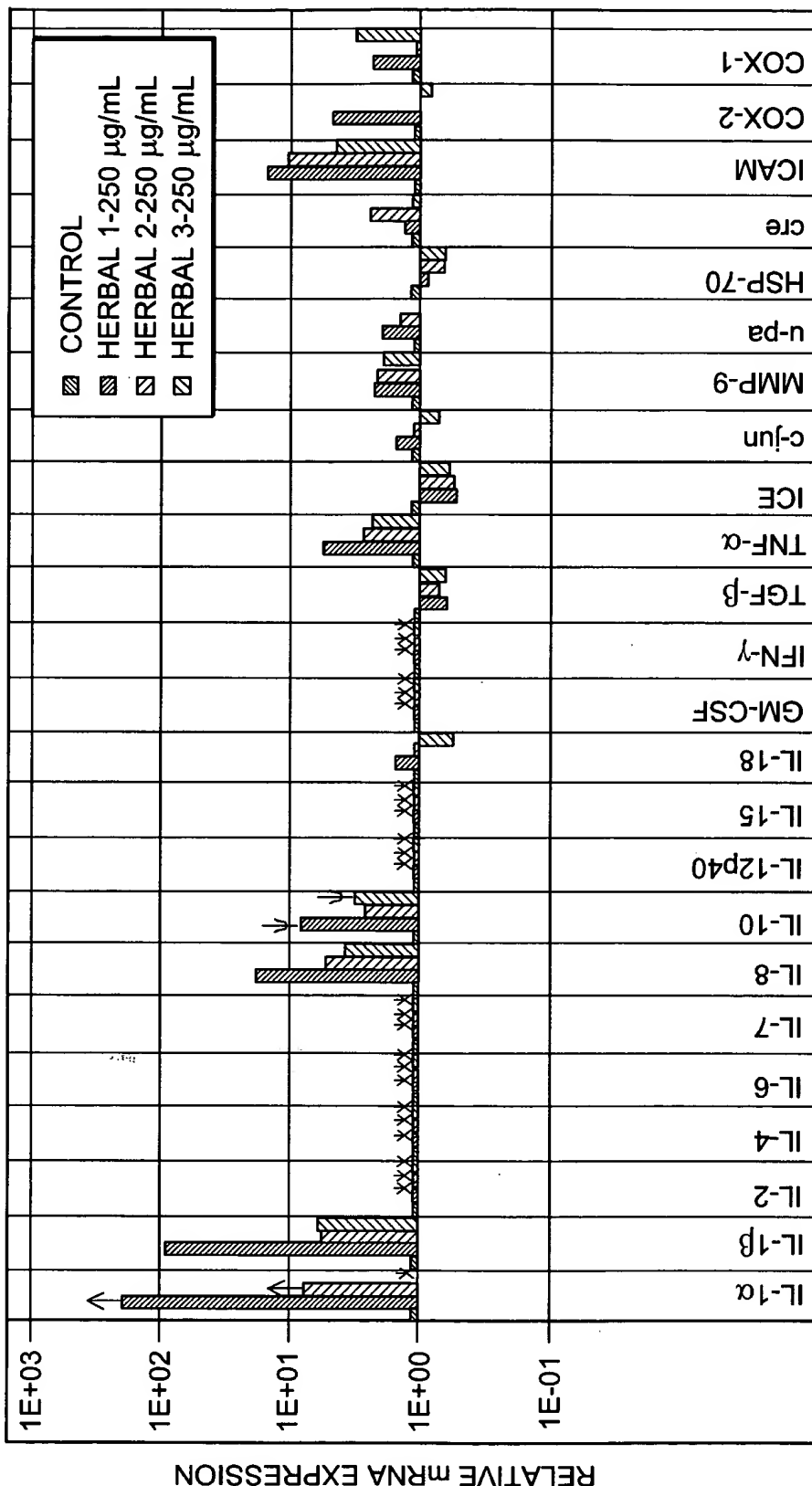


FIG. 25a



36/49

TREATMENT OF UNSTIMULATED THP-1 CELLS WITH A SINGLE HERBAL SHOWS A NICE DOSE RESPONSE AMONG A SUBSET OF GENES

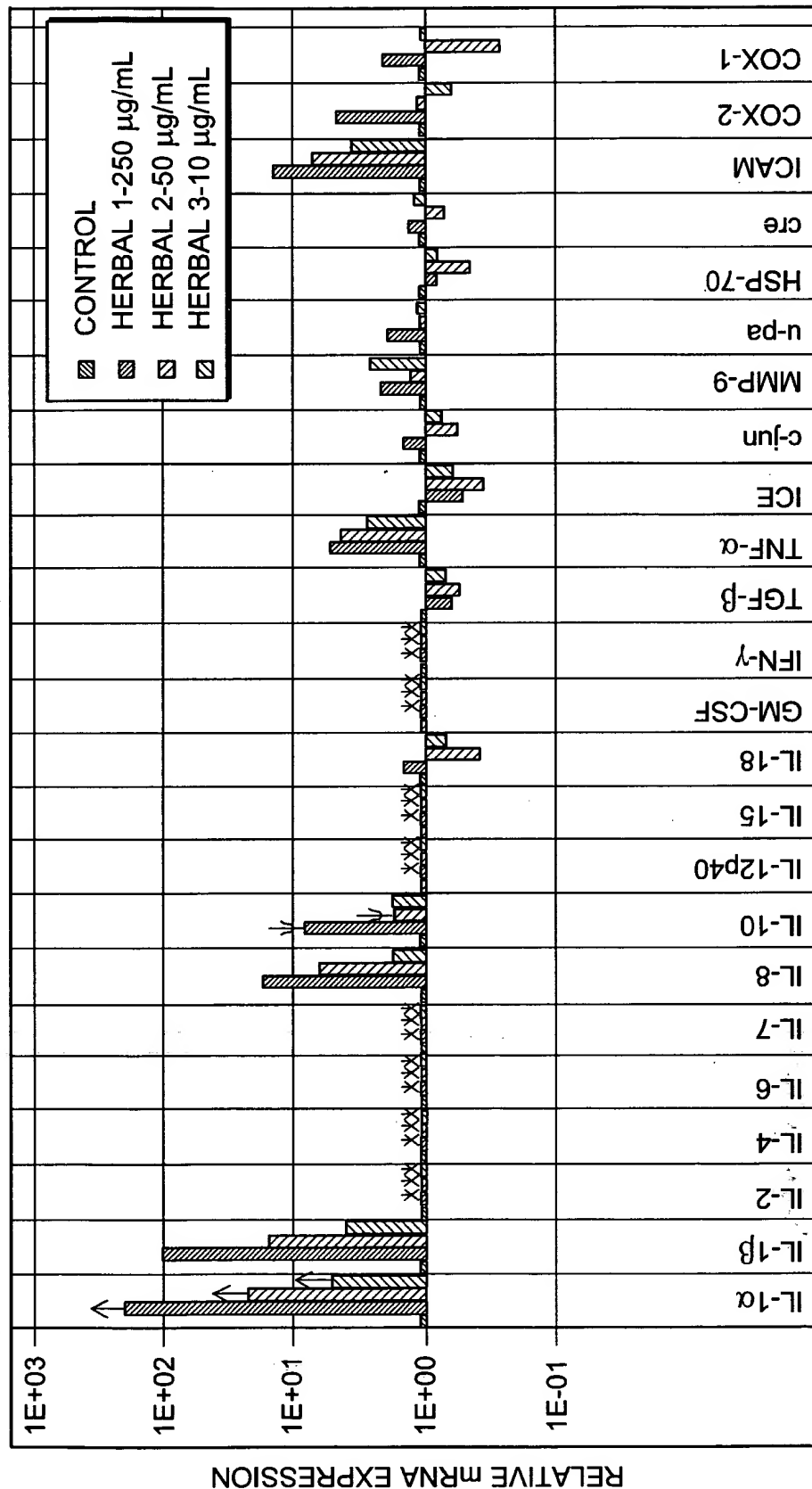


FIG. 25b



SELECTED PROFILES ALLOW FOR COMPARISON OF
COMMERCIAL ECHINACEAS (E1-E4)

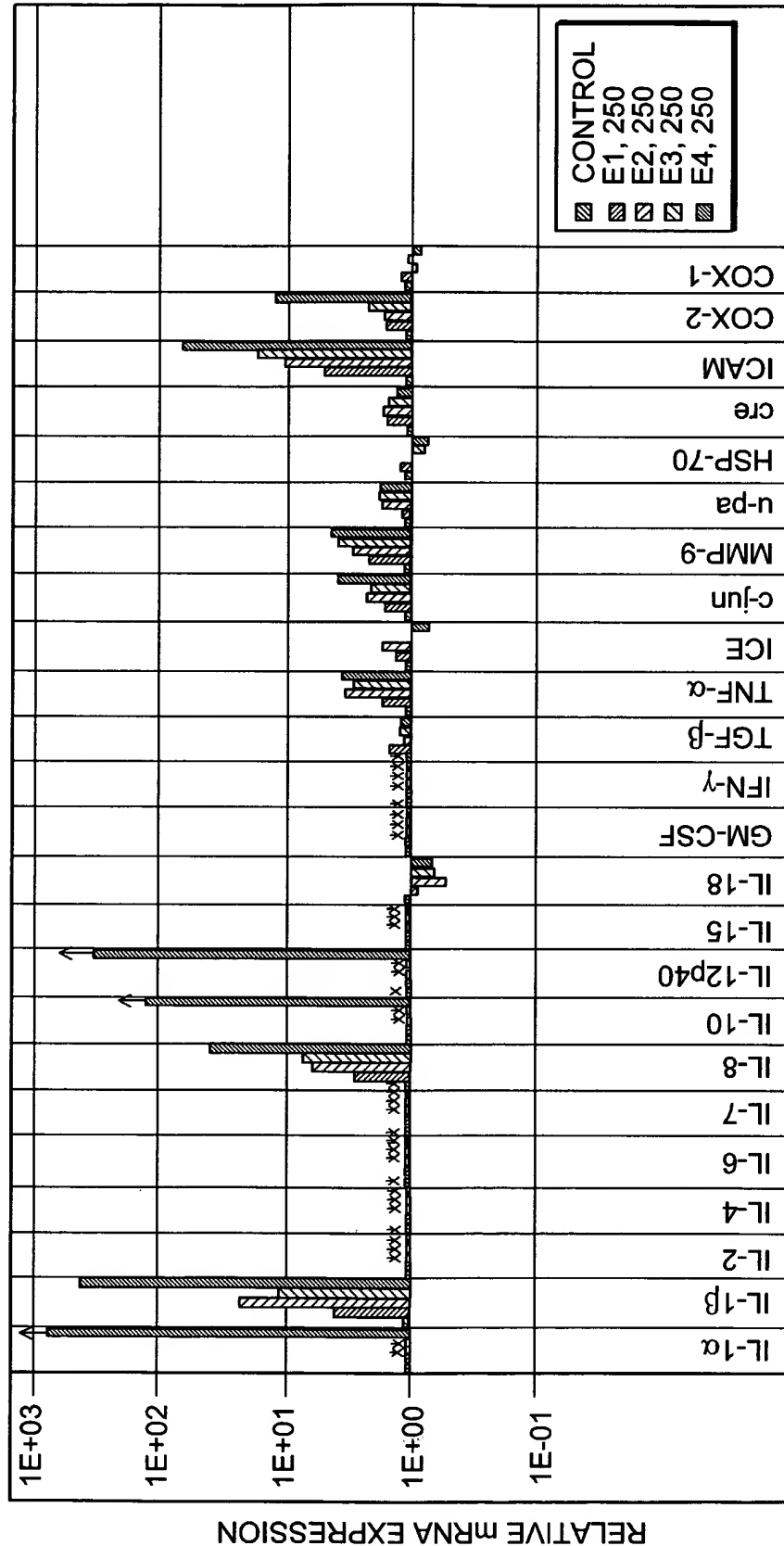


FIG. 25c

FIG. 25c



INFLAMMATION SELECTED PANEL SUBSET
DEMONSTRATES STEROID RESPONSE IN 3 DAY STUDY

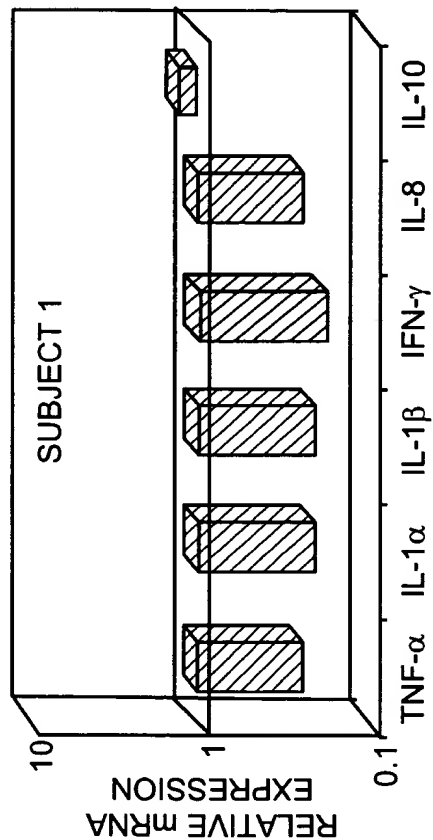


FIG. 26a

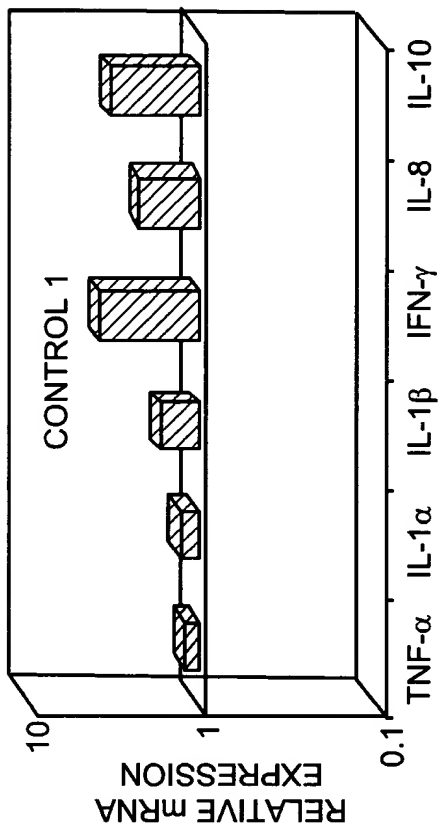


FIG. 26b

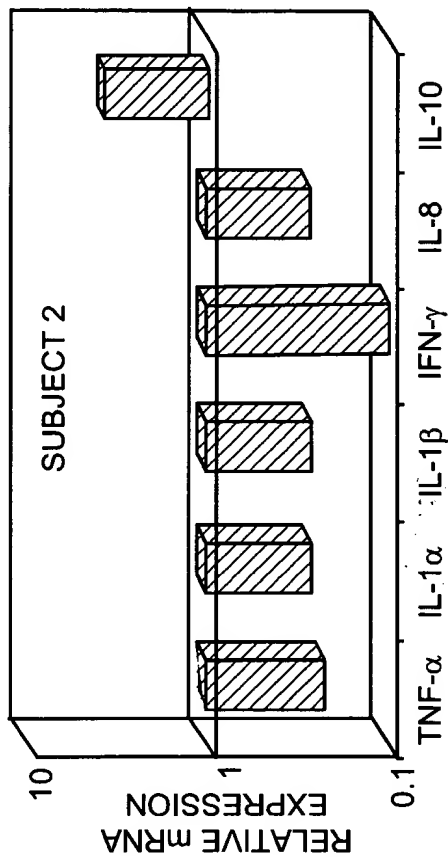


FIG. 26c

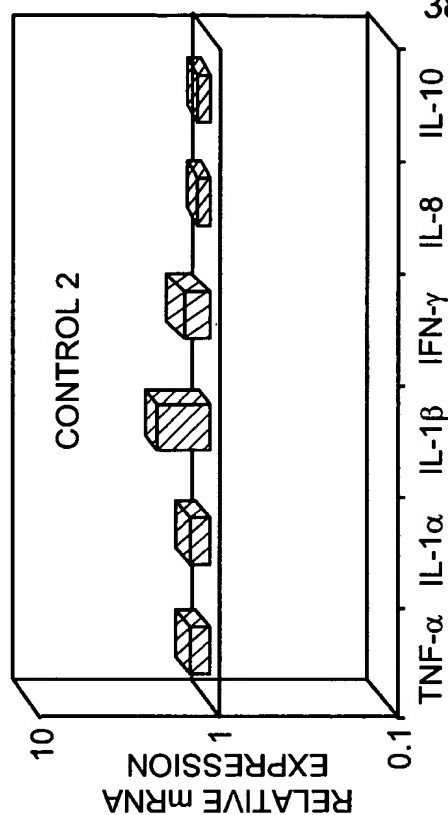


FIG. 26d



COMPARISON OF METHYLPREDNISONE AND HIGH-DOSE
IBUPROFEN IN PATIENTS USING INFLAMMATION SELECTED PANEL SUBSET

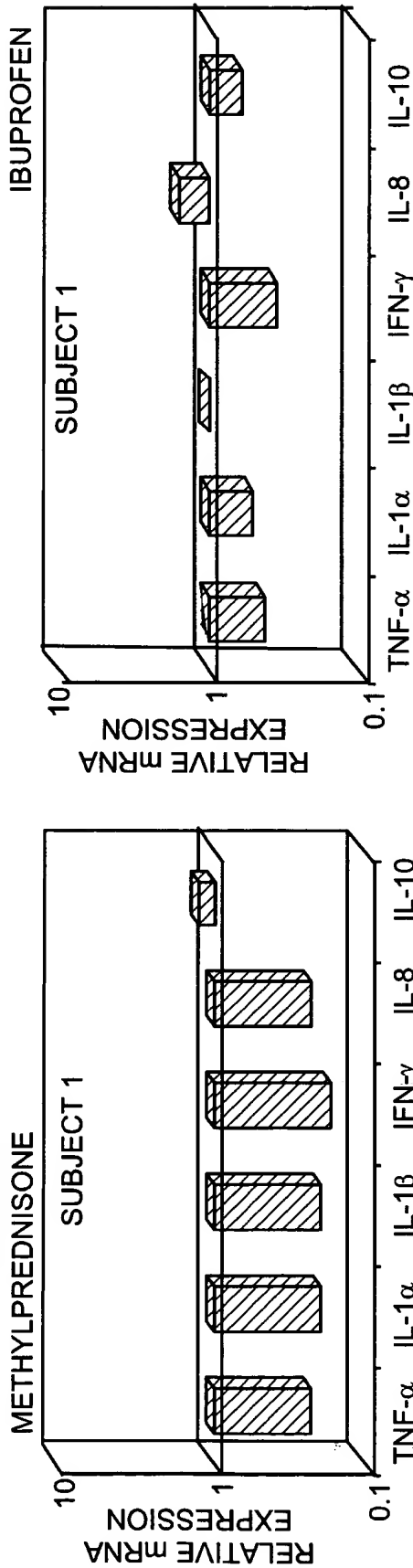


FIG. 27b
IBUPROFEN

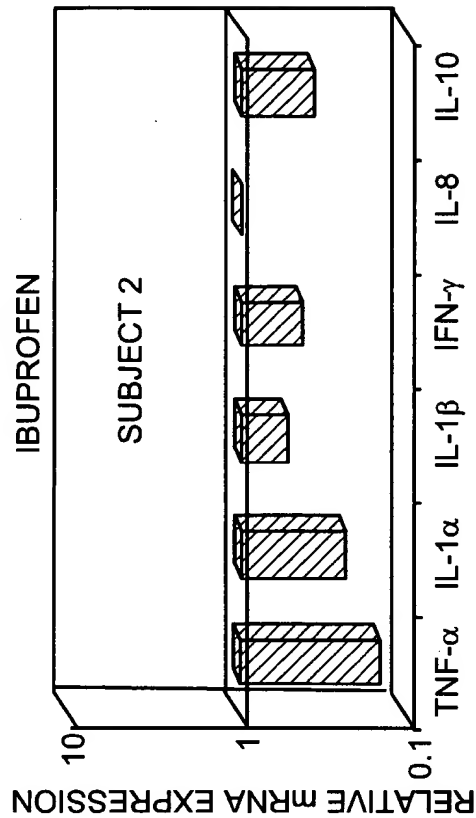


FIG. 27c
METHYLPREDNISONE

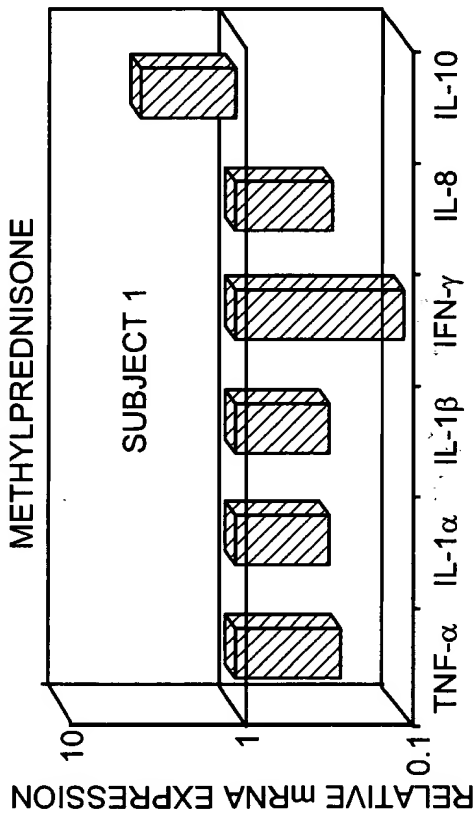


FIG. 27d



INFLAMMATION SELECTED PANEL SUBSET IDENTIFIES COPD PATIENTS

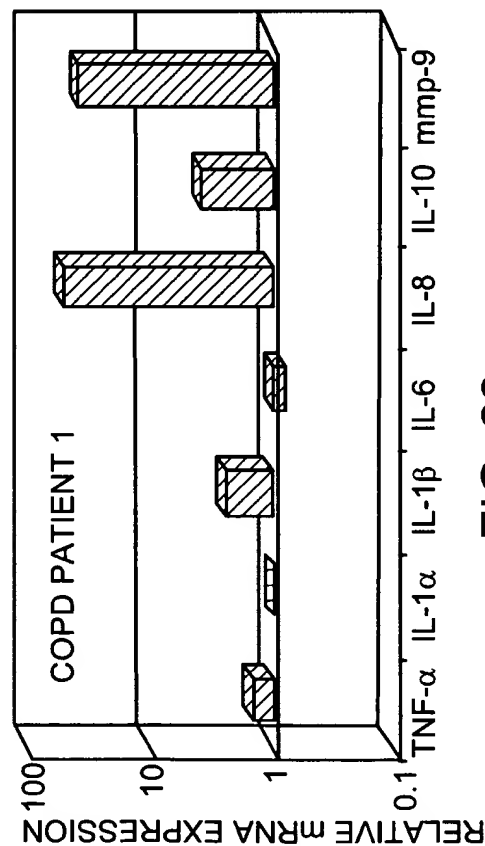


FIG. 28a

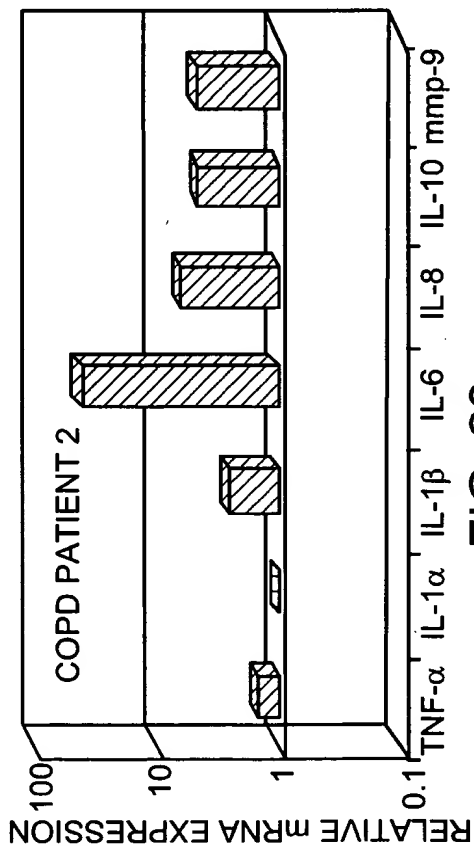


FIG. 28c

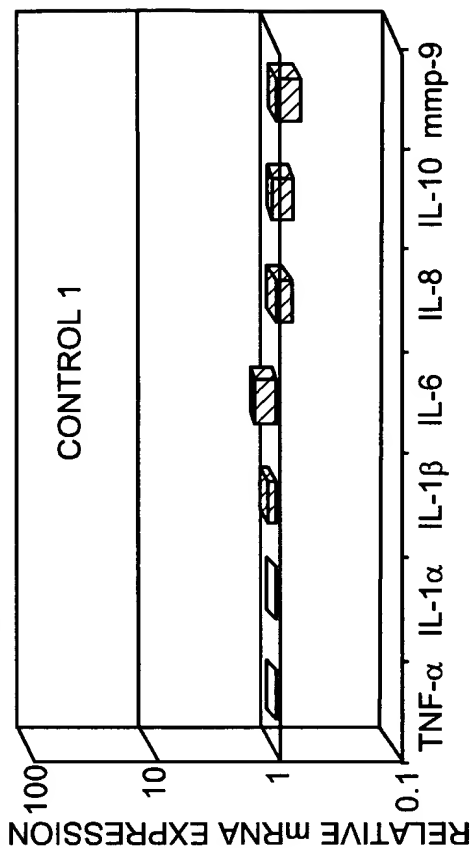


FIG. 28b

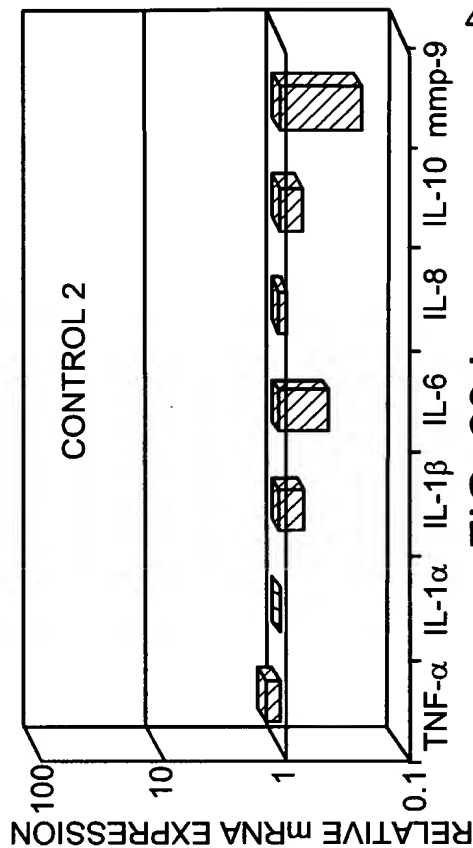


FIG. 28d



COMPARISON OF CALIBRATED PROFILE DATA SETS (USING INFLAMMATION SELECTED PANEL SUBSET) AFTER IN-VITRO AND IN-VIVO DRUG EXPOSURE (STEROIDS)--STUDY 1

AUGUST 1999
SUBJECT 1JC

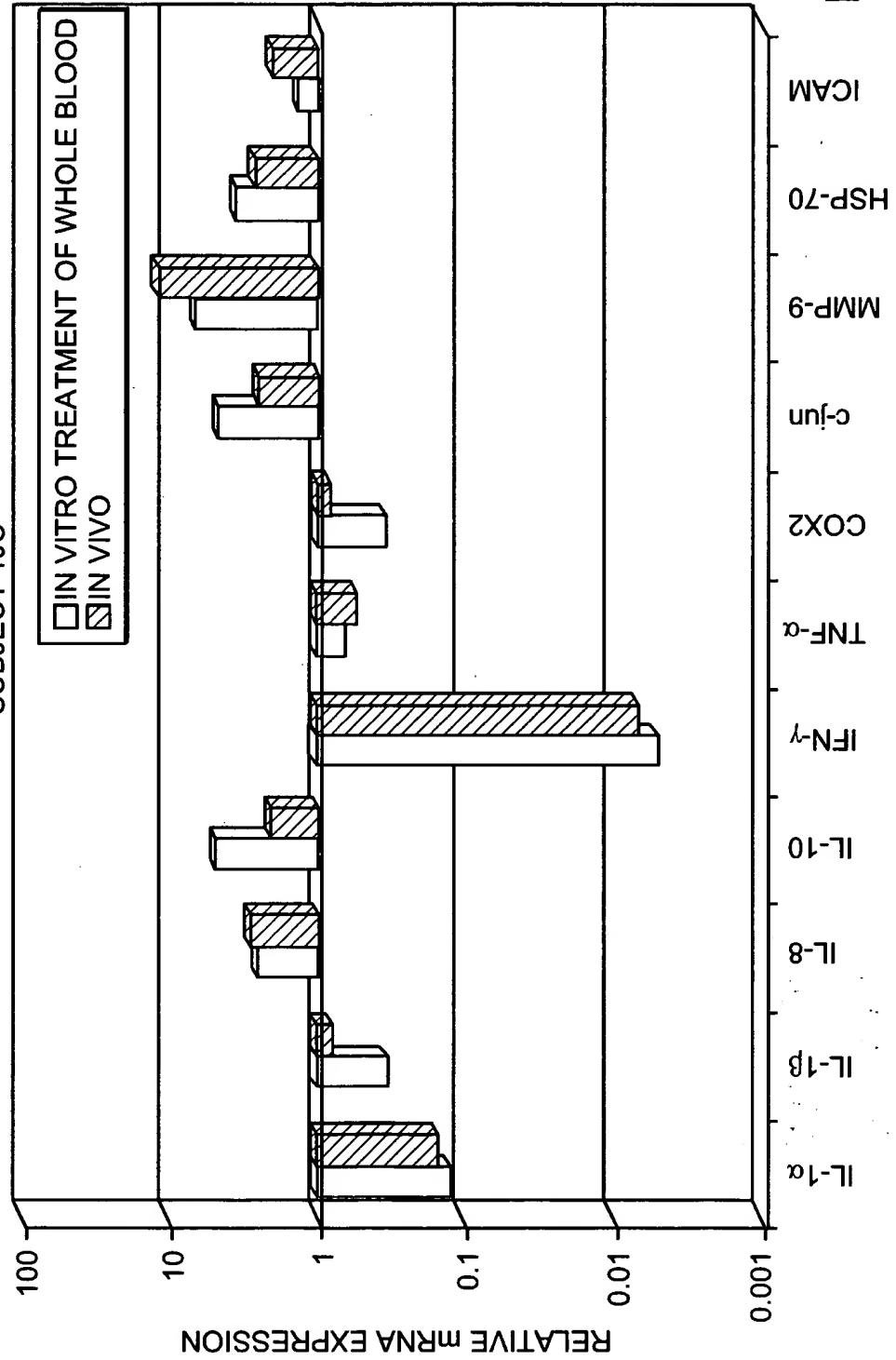


FIG. 29a



COMPARISON OF CALIBRATED PROFILE DATA SETS (USING INFLAMMATION SELECTED PANEL SUBSET) AFTER IN-VITRO AND IN-VIVO DRUG EXPOSURE (STEROIDS)--STUDY 2

AUGUST 2000
SUBJECT 1JC

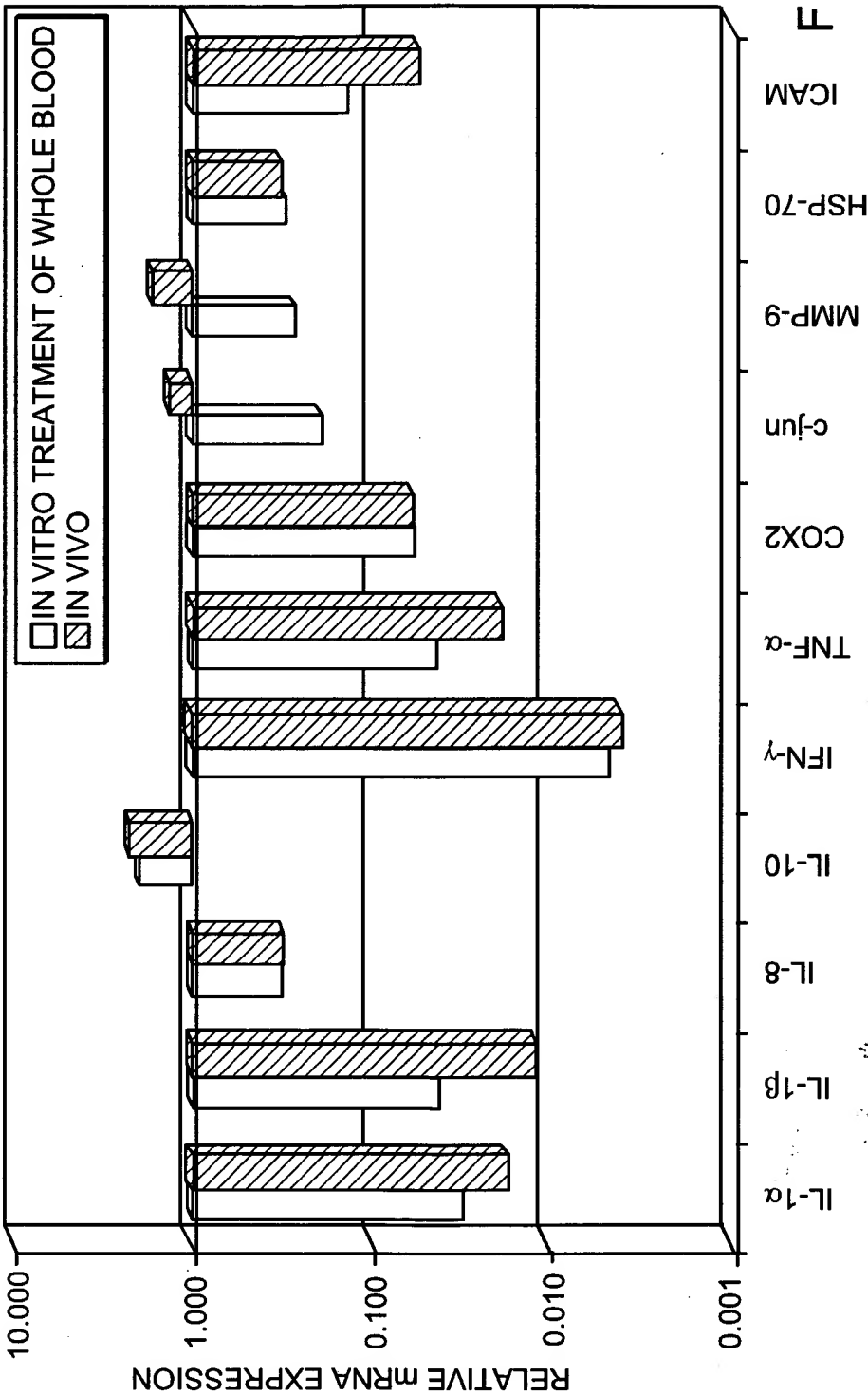
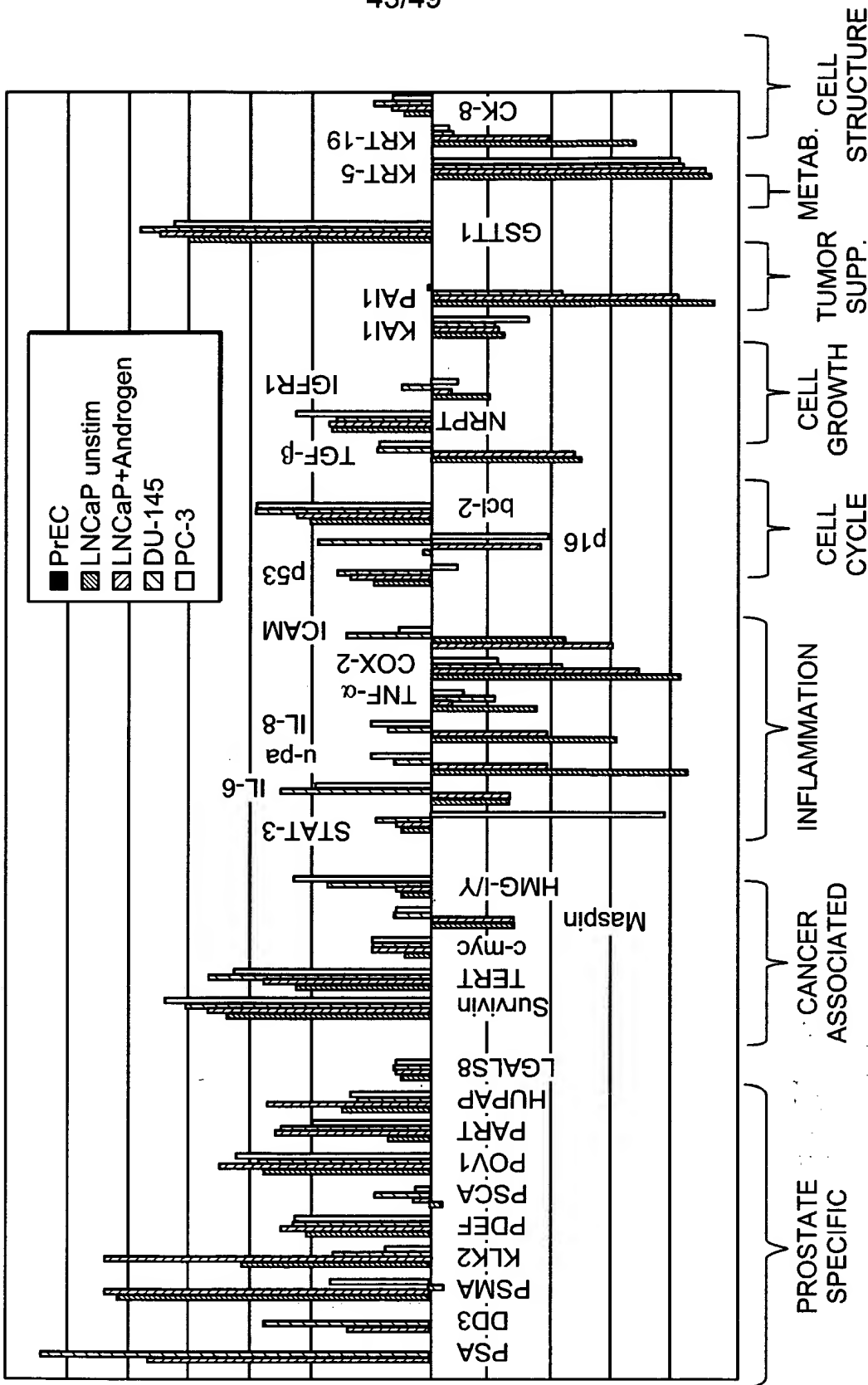


FIG. 29b



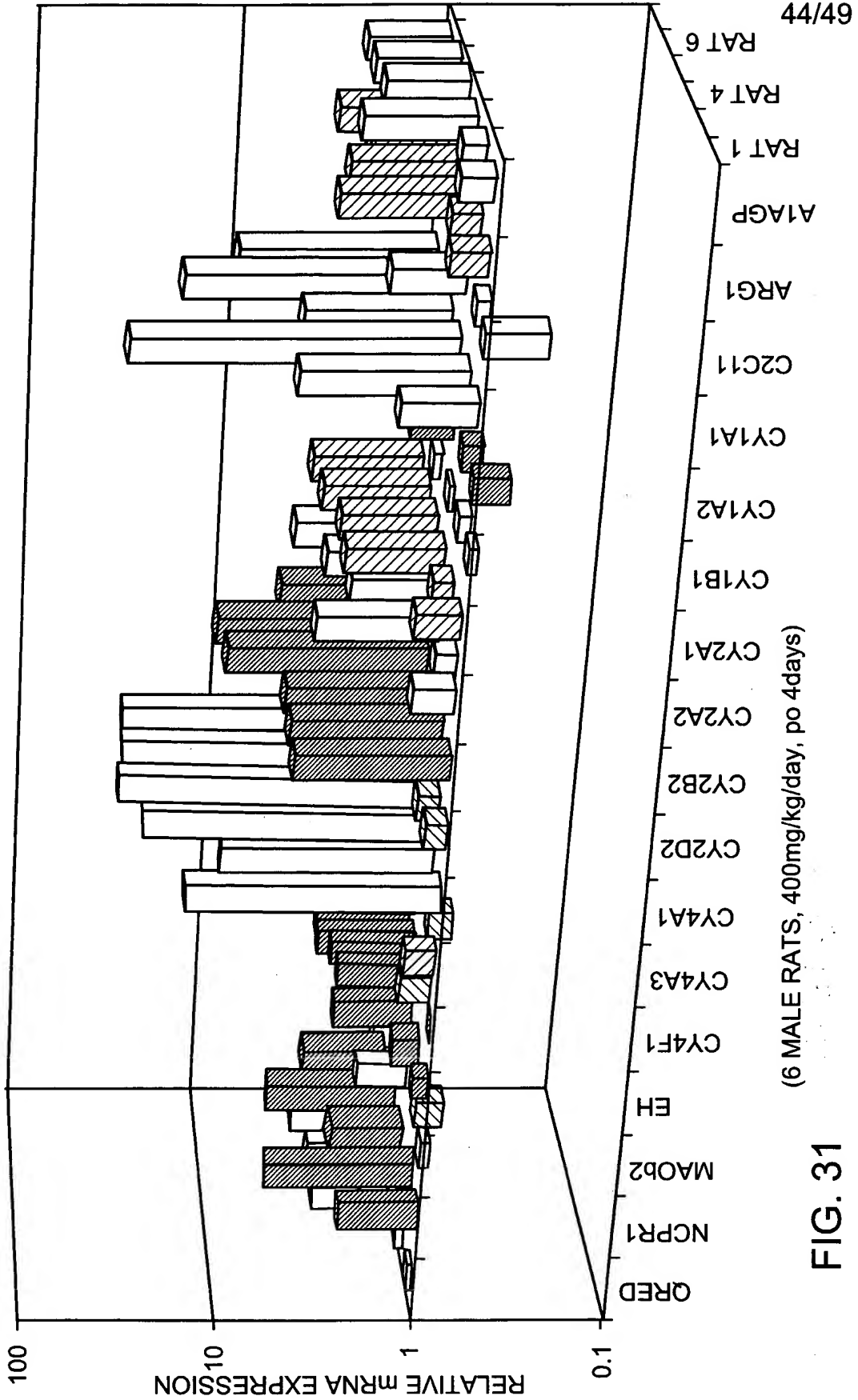
FIG. 30

EFFECT OF DIFFERENT AGENTS EVALUATED USING A SUBSET OF THE SELECTED PROSTATE PANEL, AND SHOWING BROAD FUNCTIONS OF PANEL CONSTITUENTS





EFFECT OF THE PHARMACEUTICAL CLOFIBRATE AS MEASURED ON RAT LIVER METABOLISM SELECTED PANEL





A METABOLISM SELECTED PANEL DIFFERENTIATES DRUG RESPONSES IN RATS.

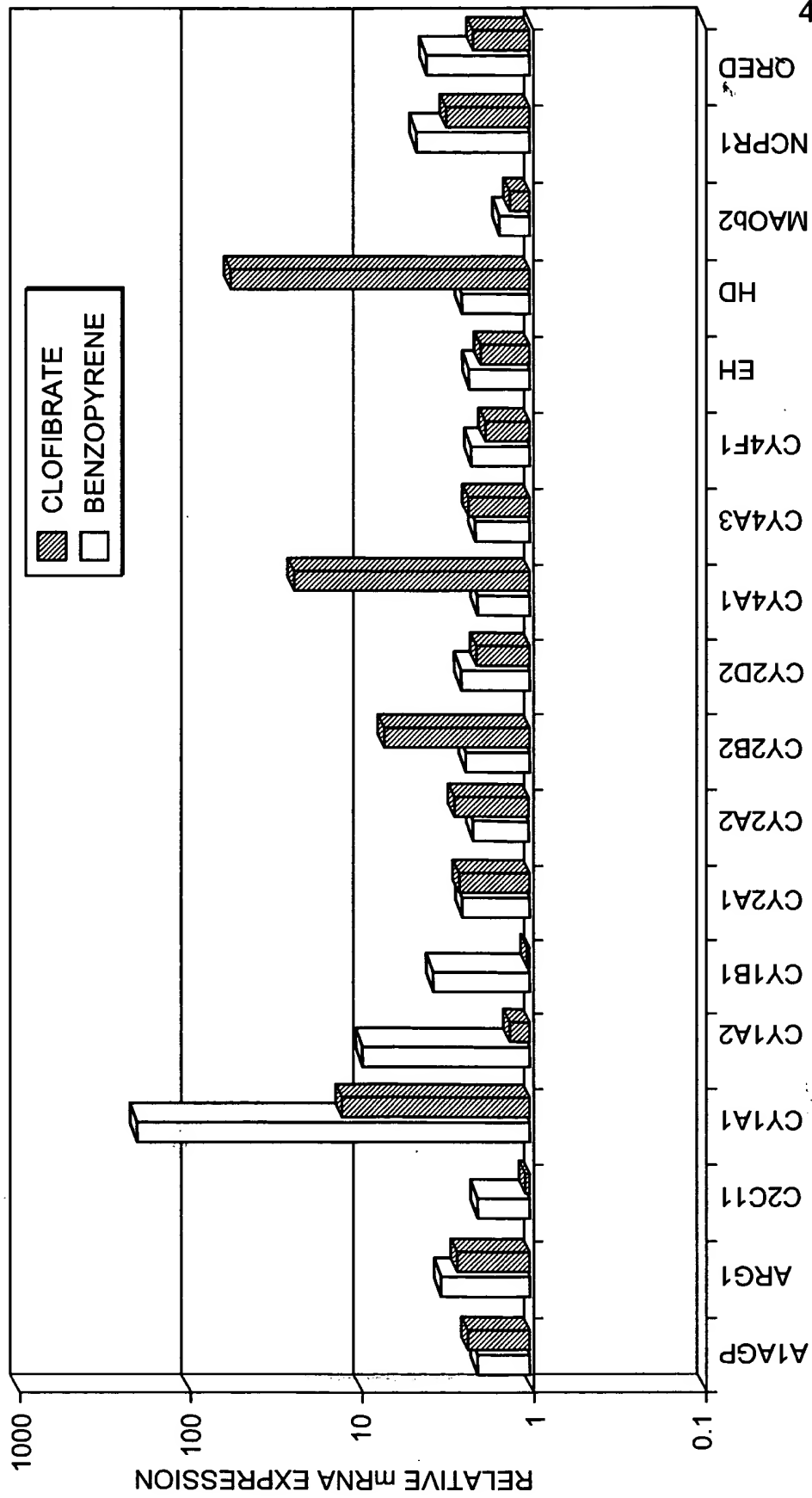


FIG. 32



46/49

A COMBINATION OF THE SKIN/EPITHELIAL AND VASCULAR SELECTED PANELS SHOW THE EFFECT OF ADMINISTRATION OF A STIMULANT.

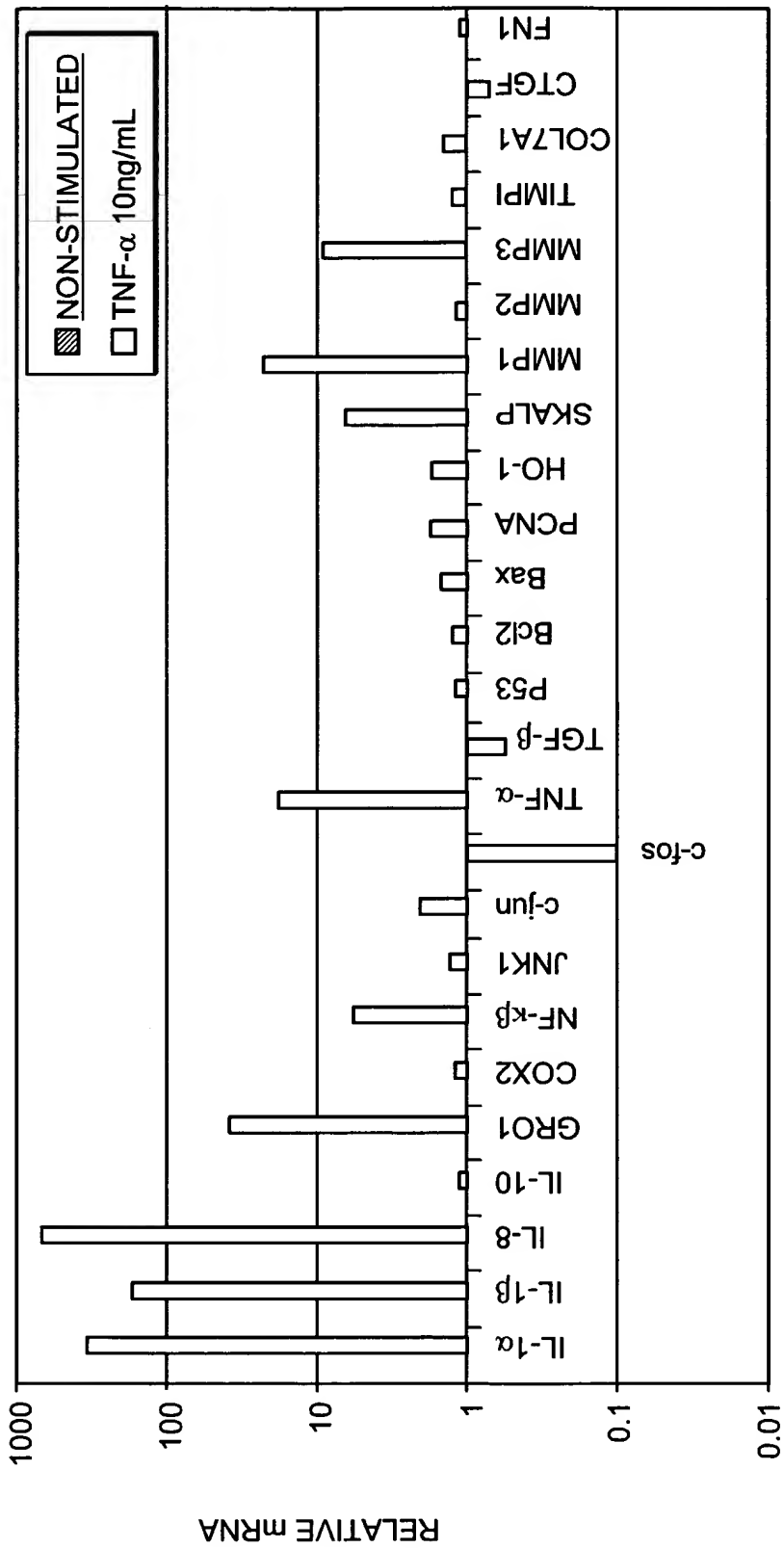
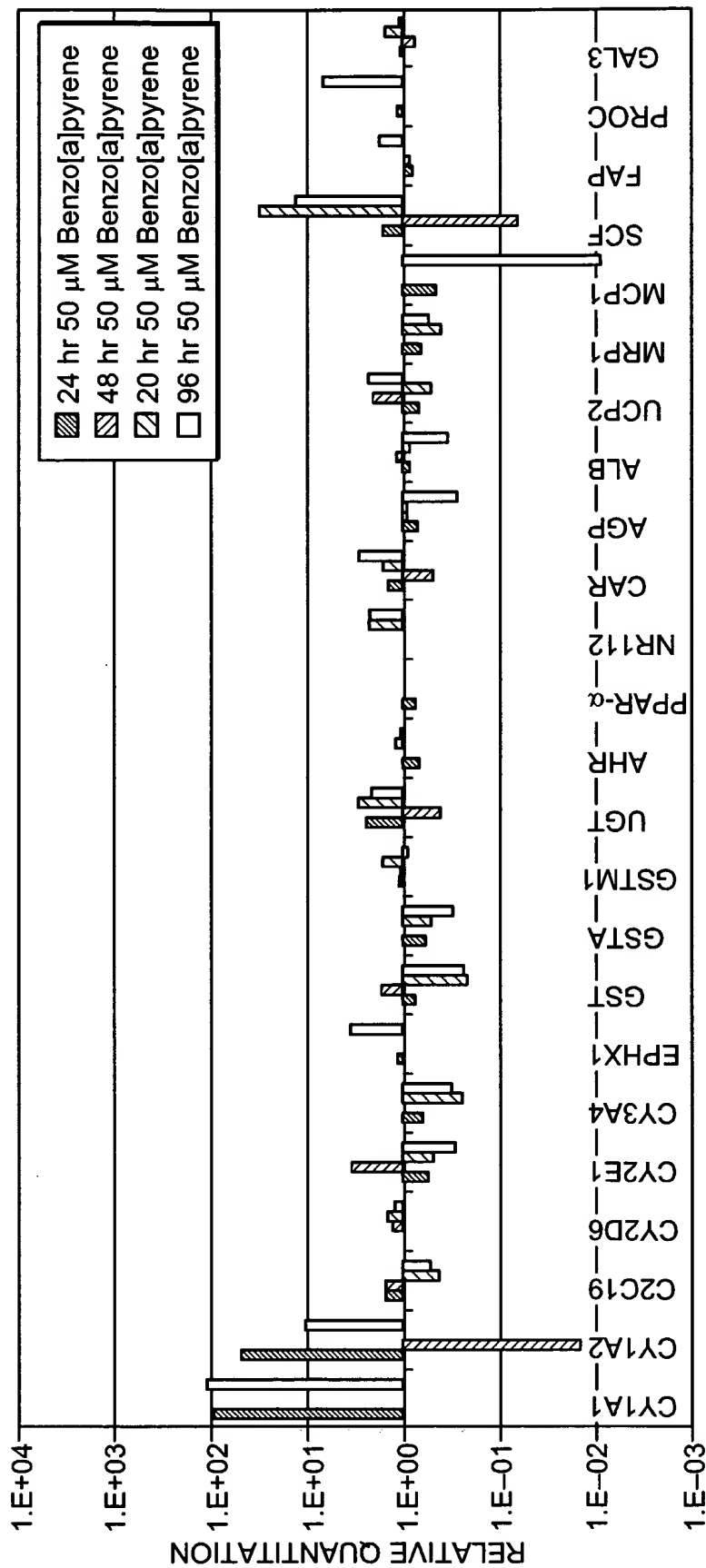


FIG. 33



EXAMPLE USE OF THE HUMAN LIVER SELECTED PANEL



Loci

FIG. 34



48/49

HUMAN UMBILICAL VEIN CELLS TREATED WITH TNF- α AND ASSAYED ON THE VASCULAR SELECTED PANEL
HUVEC STIMULATED WITH TNF- α , t = 24hr

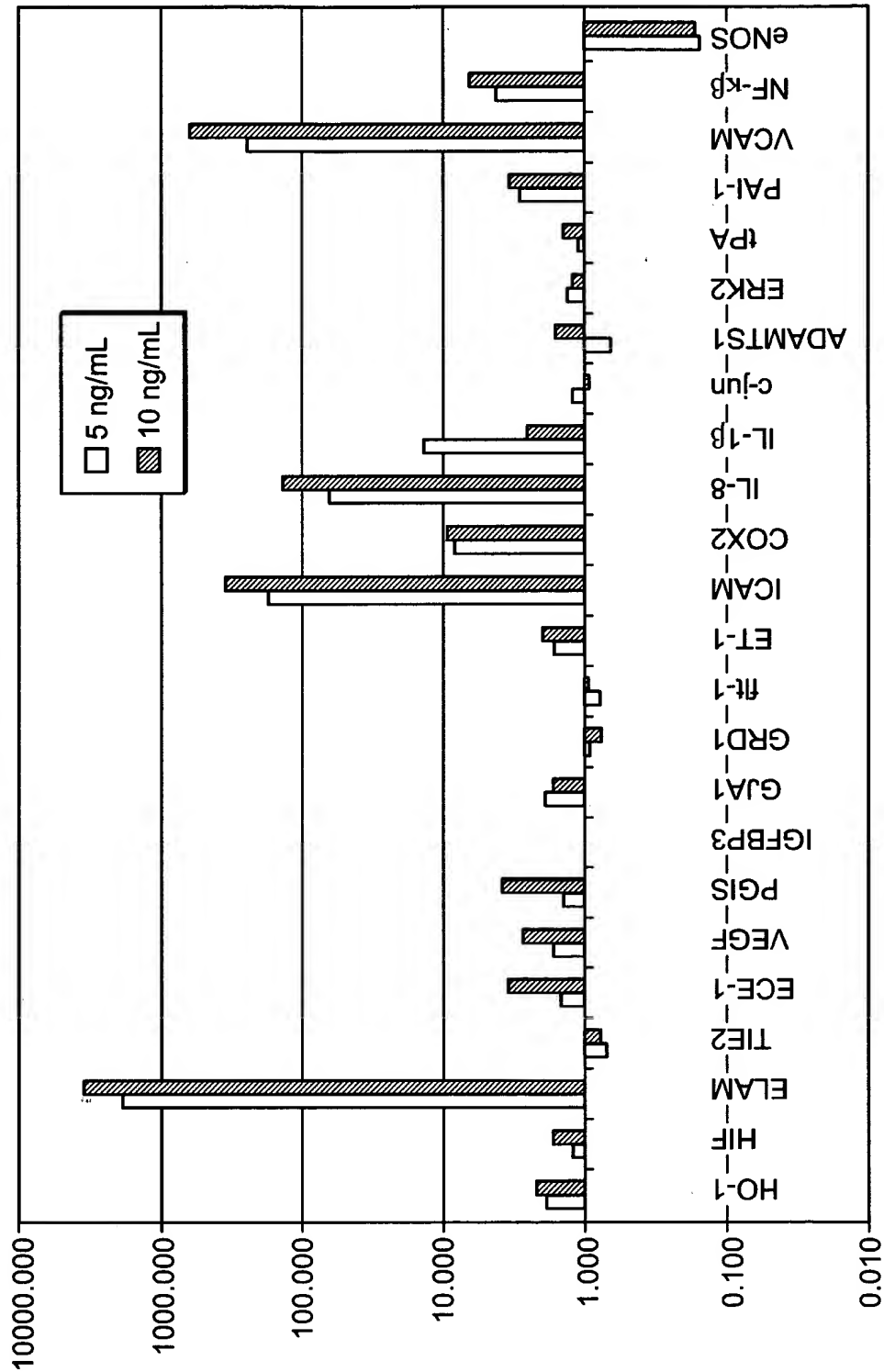


FIG. 35



ASSAY OF STIMULATED, HUMAN KERATINOCYTES ON THE SKIN SELECTED PANEL
EFFECTS OF N-ACETYLCYSTEINE ON UVB-STIMULATED KERATINOCYTES

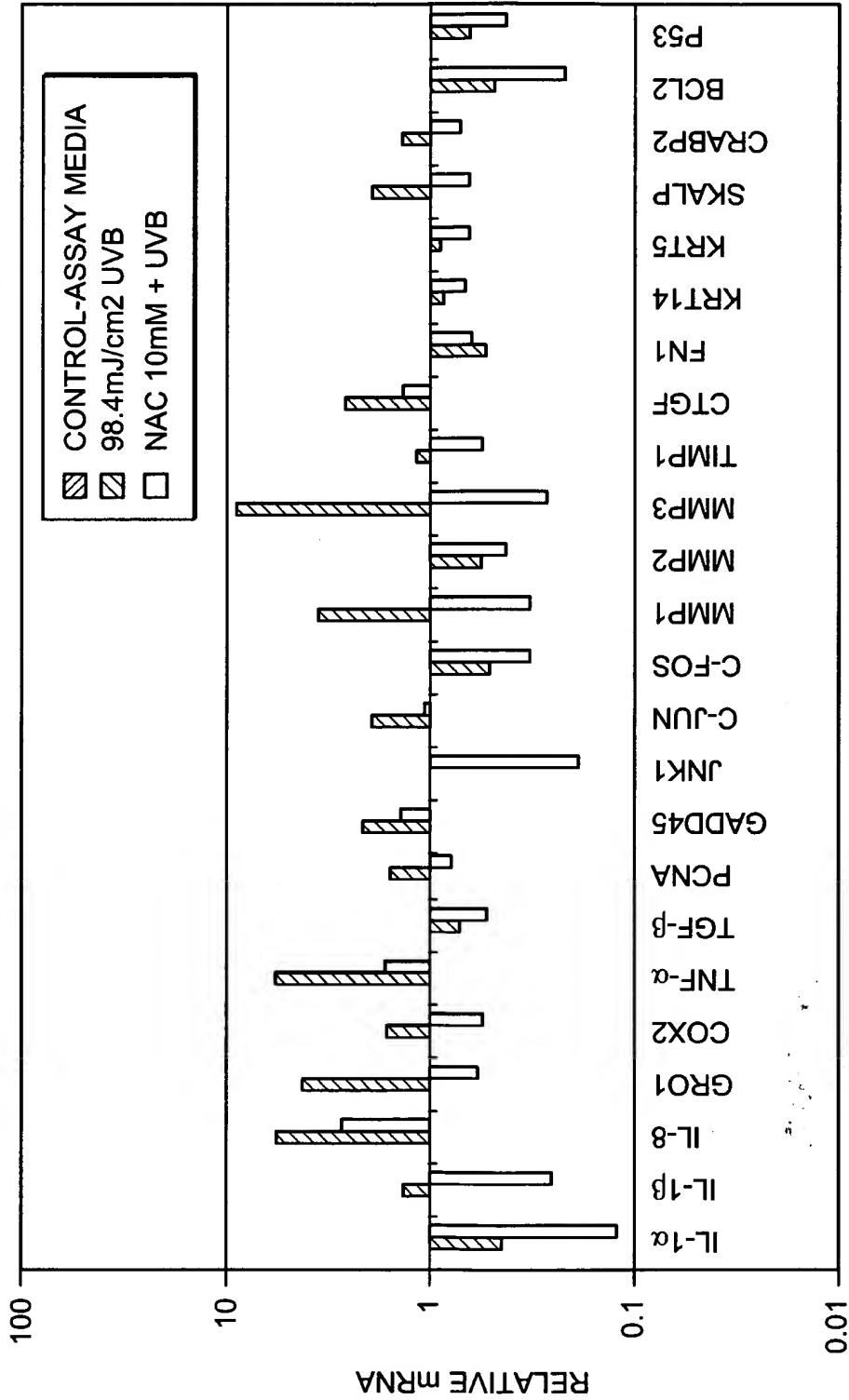


FIG. 36